

Senate Hearings

Before the Committee on Appropriations

Departments of Labor and Health, Education, and Welfare and Related Agencies Appropriations

H.R. 10061

92^d CONGRESS, FIRST SESSION

Fiscal Year 1972

Part 4 (Pages 2277 to 3132)

NONDEPARTMENTAL WITNESSES

DEPARTMENTS OF LABOR AND HEALTH, EDUCATION,
AND WELFARE AND RELATED AGENCIES APPRO-
PRIATIONS FOR FISCAL YEAR 1972

HEARINGS
BEFORE A
SUBCOMMITTEE OF THE
COMMITTEE ON APPROPRIATIONS
UNITED STATES SENATE
NINETY-SECOND CONGRESS

FIRST SESSION

ON

H.R. 10061

AN ACT MAKING APPROPRIATIONS FOR THE DEPARTMENTS
OF LABOR AND HEALTH, EDUCATION, AND WELFARE AND
RELATED AGENCIES, FOR THE FISCAL YEAR ENDING JUNE
30, 1972, AND FOR OTHER PURPOSES

Printed for the use of the Committee on Appropriations



U.S. GOVERNMENT PRINTING OFFICE

63-792 O

WASHINGTON : 1971

SUBCOMMITTEE OF THE COMMITTEE ON APPROPRIATIONS

WARREN G. MAGNUSON, Washington, *Chairman*

JOHN STENNIS, Mississippi

ALAN BIBLE, Nevada

ROBERT C. BYRD, West Virginia

WILLIAM PROXMIRE, Wisconsin

JOSEPH M. MONTOKA, New Mexico

ERNEST F. HOLLINGS, South Carolina

ALLEN J. ELLENDER, Louisiana

NORRIS COTTON, New Hampshire

CLIFFORD P. CASE, New Jersey

HIRAM L. FONG, Hawaii

J. CALEB BOGGS, Delaware

CHARLES H. PERCY, Illinois

EDWARD W. BROOKE, Massachusetts

MILTON R. YOUNG, North Dakota

PROFESSIONAL STAFF

HARLEY M. DIRKS

W. PROCTOR JONES

WM. J. KENNEDY

(II)

DEPARTMENTS OF LABOR AND HEALTH, EDUCATION, AND WELFARE AND RELATED AGENCIES APPROPRI- ATIONS FOR FISCAL YEAR 1972

WEDNESDAY, JULY 14, 1971

U.S. SENATE.
SUBCOMMITTEE OF THE COMMITTEE ON APPROPRIATIONS,
Washington, D.C.

The subcommittee met at 10 a.m. in room 1223, New Senate Office Building, Hon. Warren G. Magnuson (chairman) presiding.
Present: Senators Magnuson and Cotton.

DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE

NONDEPARTMENTAL WITNESSES

SUBCOMMITTEE PROCEDURE

Senator MAGNUSON. The subcommittee will come to order.

We will continue to receive testimony from the public witnesses on the Health, Education, and Welfare Department fiscal 1972 budget request.

I do hope that the witnesses will cooperate a little bit with us by being as brief as possible in your presentations. We have approximately 170 witnesses, and these are just nondepartmental witnesses, on this bill.

So if you will cooperate with us—you don't have to try to unduly impress us, because I think we understand what you are talking about, which mainly is the fact you all want more money.

So we will try to take a look at it and do the best we can within our capabilities and considering what we have to deal with.

STATEMENT OF DR. PAUL C. BUCY, NATIONAL CENTER FOR RE- SEARCH IN NEUROLOGICAL DISORDERS, NIH, ILLINOIS

ACCOMPANIED BY:

DR. GEORGE F. REED

DR. CHARLES E. CANIFF, NATIONAL PARAPLEGIA FOUNDA-
TION, NIH, ILLINOIS

DR. H. HOUSTON MERRITT

INTRODUCTION OF DR. BUCY BY SENATOR PERCY

Senator MAGNUSON. Now, the first witness this morning is Dr. Paul Bucy, and Senator Percy has sent up a note indicating that he cannot

be here to make the introductions, which he wanted to make personally, because he is absent today, but the introduction will be put in the record preceding your testimony.

(The introduction follows:)

Mr. Chairman, I am pleased that we have before us today Dr. Paul C. Bucy, who is Chairman of the National Committee for Research in Neurological Disorders and Professor of Surgery at Northwestern University Medical School in Chicago. With him today are Mr. Charles Caniff, of the National Paraplegia Foundation in Chicago; Dr. Houston Merritt, Professor of Neurology at Columbia University; and Dr. George Reed, Professor of Otolaryngology at Upper New York State University in Syracuse.

Dr. Bucy and his colleagues are experts in the field of neurological and communicative disorders and have prepared excellent testimony on the need for adequate funding of the National Institute of Neurological Diseases and Stroke (NINDS).

The Committee that Dr. Bucy represents is composed of 27 voluntary health agencies interested in neurological disorders and deafness. This organization and the existence of the NINDS program itself testify to the fact that we still have a long way to go in the proper treatment and cure of such diseases as multiple sclerosis, Huntington's disease, muscular dystrophy, and many other disorders. We cannot afford to be swept up in the urgency of a campaign to cure cancer, which is admittedly a pressing need, at the expense of ignoring the crippling and disabling effects that these other diseases have on our children and youth.

I know that Dr. Bucy and our other witnesses will provide some valuable insights for this committee in our deliberations on NINDS funding.

I welcome them here today.

INTRODUCTION OF ASSOCIATES

Dr. BUCY. Thank you, sir.

Senator Magnuson, could I introduce the three other gentlemen that Senator Percy was to introduce with the group.

One is Mr. Charles Caniff. Mr. Caniff, as you can see, is a paraplegic, injured as a member of the military service in World War II and is a member of the board of directors of the National Paraplegic Foundation and Mr. Houston Merritt, I am sure you know, professor of neurology at Columbia University, and Dr. George Reed of the Medical School of Syracuse, N.Y., otolaryngologist.

Senator MAGNUSON. I am glad you said "medical school," because I would never be able to pronounce that.

Why don't you just say "nose and throat?"

Dr. BUCY. Dr. Reed clobbers me, if I do, Senator.

Senator MAGNUSON. Go right ahead, Doctor.

NATIONAL INSTITUTE OF NEUROLOGICAL DISEASES AND STROKE: FUNDING
INADEQUACY

Dr. BUCY. We are here to testify in behalf of the appropriation for the National Institute of Neurological Diseases and Stroke and we are particularly concerned about the situation in that Institute, Senator Magnuson, because of the fact that that Institute has been suffering very badly the past few years, particularly this past year, and is also suffering as far as the recommendations of the President's budget are concerned.

Senator MAGNUSON. Right there, for the record in 1971, the appropriation was \$99,482,000.

Dr. BUCY. The appropriation voted by you, that is, by Congress, was \$105 million.

Senator MAGNUSON. Wait, I will come to that. The budget as suggested is \$96,521,000 and there was a great amount of money withheld and frozen last year.

Dr. BUCY. That is correct.

Senator MAGNUSON. Do you have that figure, what was it, 100 and what?

Dr. BUCY. Last year it was 105 and a fraction, was the amount appropriated.

Senator MAGNUSON. The actual amount spent then, for the record was \$99,482,000?

Dr. BUCY. That is correct.

Although the Institute is concerned in a variety of areas, there are three things in particular we wish to draw to your attention.

One of these is in training. In training, this past year 25 of the training programs formerly supported by the Institute had to be discontinued because of a lack of money. Forty new programs which applied for support, and, sir, I am not going to read the statement.

Senator MAGNUSON. No; we will put that statement in the record in full and you can summarize it.

Dr. BUCY. Yes; 40 new programs, which were approved by the various review committees and the council, were approved but could not be funded because of the lack of money.

Now, the result is we are very short of training and we badly need training in this area because the training is predominantly for teachers. Practically all of the teachers in the medical schools of this country have been trained in the past by the training programs supported by this Institute in the neurological field. We still are in need because of the great increase in the number of students, approximately a 50-percent increase, which is true in my own medical school, and because there are some 21 new schools which are either beginning to be formed or in the planning stage where we are going to have to have teachers and with this thrust in training we cannot possibly supply the teachers.

All of the existing training programs which are still being supported have been cut 15 percent in their funds so there is a very serious problem so far as supporting these are concerned.

Now, the second area in which the Institute is in difficulty is concerned with its so-called perinatal program.

As you know, there are many diseases suffered by children, with which they are born, and in many instances these are either because of drugs that the mothers were taking or were given or illnesses which the mother suffered during pregnancy, which very badly affected the children so that the children are born with defects of their nervous system.

These do not necessarily make their appearance at the time the child is born and may not make their appearance for 10 or 12 years.

In an effort to find out the cause of these defects in the nervous system, this perinatal program was set up to study a large number of mothers and to study then the children born to them and to attempt to determine what were the factors which affected these children during pregnancy to give rise to these disturbances.

This program has been in operation for approximately 10 years, approximately \$100 million having been spent on it, and now the recommendation is this.

Senator MAGNUSON. You mean \$100 million Federal money?

Dr. BUCY. Yes, sir.

Senator MAGNUSON. Or total?

Dr. BUCY. Federal money.

Senator MAGNUSON. How much total has been spent on it?

Dr. BUCY. I think the support was practically all Federal money, sir.

Senator MAGNUSON. There has been no other support?

Dr. BUCY. Not that I know of.

Dr. Merritt?

Dr. MERRITT. There has been some. United Cerebral Palsy supported it with \$1 million a year.

Senator MAGNUSON. It has not been much.

Dr. BUCY. There have been others.

Senator MAGNUSON. Do the medical schools support this program in any way?

Dr. BUCY. Yes.

Senator MAGNUSON. How do they do it, use their own money?

Dr. BUCY. I think it will be difficult and Dr. Merritt can correct me.

Senator MAGNUSON. You know. You have a project that says "Syracuse," Dr. Reed, how much the school puts in and how much the Government puts in.

Dr. BUCY. What the school contributes, Senator, is the manpower to do this, members of the faculty and whatnot.

Senator MAGNUSON. You can figure it out.

Dr. BUCY. I don't know.

Mr. MERRITT. I think almost as much, because many of the people that are leading these concepts are not paid by the project but by the university.

Senator MAGNUSON. I know, but what we are trying to find out, we are hoping there are contributions from the people involved. It may be contributions in kind, I suppose physical contributions with places and equipment and that sort of thing.

Dr. MERRITT. And personnel.

Senator COTTON. Excuse me.

I commend you for using layman terms, but is this program you are now discussing a program that has been referred to in previous testimony as genetics?

Dr. BUCY. No, sir, genetics are a part of this problem of defects in children, sir, but here we are dealing with something else.

Senator COTTON. That is a separate program?

Dr. BUCY. Yes, sir. The genetics concerns a child that is defective because of his heredity. His nervous system is not what it ought to be because of his heredity.

An example of that is Huntington's disease or Huntington's chorea, which is a disease which one inherits and which usually makes its appearance in the late thirties.

This is a genetic disease in which a person who has it is defective because of his heredity. What we are talking about here is people who are defective because of what happened to the mother during the pregnancy.

Senator COTTON. I apologize, Mr. Chairman, but I just wanted to get that straightened out.

Dr. BUCY. The third area in which I was asked to call to your attention was one you and I talked about in the past, Senator Cotton, also, which has to do with paraplegia, which is paralysis either of the legs or arms and legs due to injuries to the spinal cord. In the last 2 or 3 years both the Senate and House have included in their reports recommendations for centers for research on injuries to the spinal cord be established.

Last year you designated money for this purpose. At this very moment, the applications to develop these research centers are being evaluated by the Institute. These are purely planning grants and the amount of money is relatively small.

Once these planning grants are awarded, which they will be this summer, and once the planning has been done, which it will then be in the next few months, we shall need money for the creation of these research centers.

The money which has been appropriated thus far is for planning.

For that reason, we specifically ask that you appropriate \$5 million for these clinical research spinal cord injury centers so that we may proceed with development of the centers and without a specific designation of that it will not be possible to proceed.

Senator MAGNUSON. Specifically, what are you asking for money-wise?

Dr. BUCY. Total for the Institute is \$144 million. This has been broken down by the national committee, who have reviewed this. That is on the last sheet of my testimony, Senator, which you have.

Senator MAGNUSON. I see it.

Dr. BUCY. It has been broken down into \$85 million for research, \$5 million for fellowships, \$25 million for training in the grants section and for direct operations by the Institute it is \$11.2 million for research in the intramural program and \$11.4 million for collaborative research and development, \$3.5 for biometry, epidemiology, and field studies and nothing for training because they have taken care of that someplace else.

In the past there has been a figure for training, but it was not needed at this time—\$2.3 million for review and approval of applications and \$600,000 for program direction.

That makes a total for the direct operation of \$29 million or a total for the Institute of \$144.

Senator MAGNUSON. As compared to the budget suggestion of what?

Dr. BUCY. Ninety-five and a fraction.

Senator MAGNUSON. That is \$40 million more.

Dr. BUCY. Yes, sir, approximately. No, more than that, sir, it is closer to 48 or 49.

Senator MAGNUSON. Forty-nine or \$50 million more.

Dr. BUCY. Yes.

Senator COTTON. When you say "training is taken care of someplace else," do you mean some other place in this bill or from some other source?

Dr. BUCY. Sir, the training I was speaking of is not the major training effort. This was the intramural training at Bethesda at the clinical center of NIH and they have taken care of this within their direct operations in another area.

But the overall training, the training say at Columbia or Syracuse or training in Chicago comes under the "grants" section of this and that is not what I was speaking to.

Senator MAGNUSON. Are of these places in schools?

Dr. BUCY. Practically, sir.

Senator MAGNUSON. Give us a good example of a grant. How does it operate?

Take one of your colleagues here at Syracuse or wherever he works, give us an example.

Dr. BUCY. Yes, sir.

These are young men who have finished medical school who have finished internship and are now going to be trained in their specialty. In this case, it might be neurology, neurological surgery rather or otolaryngology, Dr. Reed's area.

These young men receive training in research, but the principal thing which they receive is training and experience in their particular specialty, so that when they have completed this training they are specialists in neurology or neurosurgery or otolaryngology and prepared to go into medical schools and teach.

Senator MAGNUSON. Before you leave that subject, what percentage goes back to teaching?

Dr. BUCY. I would say that most of the ones supported by our training grants do, sir.

Practically every teacher that we have in this country today was trained in one of these training grants.

Now, there is another dividend to this. Let me give you an example.

In Louisiana, we have this situation.

Senator MAGNUSON. Well, now, it has been said many times that out at NIH most of the work is done by Ph. D.'s and not doctors.

Dr. BUCY. Yes, sir.

Senator MAGNUSON. Which is true, and this purpose would be to train, not doctors for general practice, but those who would go back, they wouldn't go back through the schools or to NIH, could they?

Dr. BUCY. Yes, sir.

Now, there are Ph. D.'s in the training program, particularly those training programs which are in the basic sciences, like anatomy of the nervous system or physiology of the nervous system or pathology of the nervous system. These are Ph. D.'s but there are training programs such as Dr. Merritt's or Dr. Reed's which are for experts in certain fields.

Senator MAGNUSON. All right, you have so many in your organization. How many people do you have, for instance, in one of the grants?

How many people would you have?

Dr. MERRITT. We have approximately 15 in our training grant. Not all of them are paid by the grants, but some by us.

Senator MAGNUSON. How many?

Dr. MERRITT. About half.

Senator MAGNUSON. About half. Who decides who is paid by the Government or paid by you or by the school?

Dr. MERRITT. We have a certain number allowed us by the hospital and school and this enables us to put on an equal amount so we can train just twice as many.

The vast majority of them go back to the teaching. In my program in New York, which has been going about 10 years, every program we have had has gone into other schools and about 30 of them are chairmen of departments.

Senator MAGNUSON. Is there a place for them all?

Dr. MERRITT. Yes.

Senator MAGNUSON. Or is there a bigger demand than their appeal?

Dr. MERRITT. There is a much bigger demand for teachers than we can supply and the demand for practitioners is just not nearly met.

Senator MAGNUSON. What about the training program underneath? Do you have some undergraduates that might come in?

Dr. MERRITT. Yes.

Senator MAGNUSON. Do what, laboratory technicians or laboratory work?

Dr. MERRITT. We have laboratory technicians, but not paid from the grants, but by the school.

Senator MAGNUSON. But this would be a place where they could get some training?

Dr. MERRITT. Yes.

Senator MAGNUSON. Because the demand for the so-called auxiliaries in the whole field is even greater than some of the professionals?

Dr. MERRITT. We have more, we have about 20 programs for training of auxiliary medical personnel in our school.

Nursing aides, for instance, technicians for X-ray, technicians for blood studies and specialty types of technicians, various types.

Senator MAGNUSON. We have no figures on how many go into teaching, but I imagine the Institute could furnish that. They must keep track of it.

Dr. BUCY. They do have it.

Senator MAGNUSON. Yes, we will ask them.

Now, on page 4, you make an interesting comment, you say "Any one who tells me that a reduction in the budget of NINDS of \$3,600,000 'is of little consequence' is saying, 'We are very concerned about those diseases which are going to kill our old people'"—cancer and heart you are talking about, I suppose?

Dr. BUCY. That is correct.

Senator MAGNUSON. But the diseases of our children are of little consequence?

Dr. BUCY. That is right.

Senator MAGNUSON. Who says that?

Dr. BUCY. Me. The other statement "is of little consequence," however, was made to me in a letter which we have from HEW.

Senator MAGNUSON. I read that part of it.

Dr. BUCY. The Neurological Institute, sir, is concerned with primarily these things.

Senator MAGNUSON. I know what it is concerned with, but I am saying I don't think that impression should get abroad. If we are going to start to get into priority fights on medical research here, we are all in trouble.

Dr. BUCY. Right, sir. This is exactly where the Institute is finding itself because funds have been taken from it for the other Institutes.

Senator MAGNUSON. Well, they have their little arguments out there and Congress has to take the word of people who know something about this. I am no expert on whether or not one institute should get more than another.

The only thing I have to be an expert on is how much can the country afford for the overall program and the priorities have to be established by the people who should know.

It fans a lot of feuds about it, but I don't like to see any of these 11 or 12 institutes get into an argument with one another about funds.

I want for them to fight for their funds, for their place in the sun, but not to suggest that you are taking it away from one to give it to the other.

If that is being done, the committee is going to do what they can to stop it. We have to take these things as they come along and I suppose you have this situation, you gentlemen would agree with me that once in a while in research you get excited about something you discover in one field and you say "let's push that."

Dr. BUCY. Correct.

Senator MAGNUSON. Then in the other field maybe the activity has subsided a little. The real problem I think with the Institute is that when you find out something in January in your field, that you ought to pursue, that is, there ought to be money there available so they won't have to wait for July to come around.

Well, last January say we found out something but we didn't have money to get at it and now we are asking for something. This is the real problem.

We have witnesses here for every Institute for every phase and the all want more money for their particular thing. Somebody has to be sort of evaluating these things.

If I had my personal way, I would give them all they would want, but that is not the way it operates, not all they would want, but pretty substantially more, which we have been doing for years on this subcommittee.

So I am hopeful that there won't be any impression here when we look at your item that we are not going to do what we think and what you think or what the people think should be done, because we have done some more for another institute or taken one away from the other.

Dr. BUCY. This was the appropriation which was made by Congress for this Institute.

Senator MAGNUSON. Yes; to begin this?

Dr. BUCY. To begin with, yes; and it was taken from that NINDS appropriation and transferred to others. This is part of our problem.

Senator MAGNUSON. Well, that is the Budget Bureau that does that. I guess, in all fairness, they have to look at the whole overall budget, too.

We just got through, as you know, the argument of whether we should have a crash program on one thing.

Dr. BUCY. Yes, sir.

Senator MAGNUSON. Go into that and spend your resources more in that field and that would take away from some of the rest of them, it is bound to.

Dr. BUCY. Yes, sir.

Senator MAGNUSON. So it is a little difficult to handle. I look at this over the years, and I established the Cancer Institute in 1938, and that was the only one. We got the big sum of \$1 million to start it.

Mrs. Wilson gave us all of the land where the institute is now, otherwise we could never have gotten off the ground.

Now we get up into big sums and the point I am trying to make is this: I hope you dedicated people in your own phase of this matter don't get in a priority feud with the other people.

Dr. BUCY. The last thing we would want to suggest is we are opposed to adequate appropriations for any of them.

Senator MAGNUSON. Yes.

Dr. BUCY. By no means.

Senator MAGNUSON. I don't think, when they took away what you have listed here and put it into another place, they should not have done that because it violates what Congress wanted to do, too.

Dr. BUCY. The same is true of the budget for next year. This institute has been recommended for even a further cut over what it had last year, even over what the President's budget was last year.

Senator MAGNUSON. On your last item—the 29 on direct operations suggested over and above what is in the budget?

Dr. BUCY. No, sir, that the budget also contains figures for direct operations, but I, sir, don't have the breakdown of that with me, of the President's budget in these various areas.

Senator MAGNUSON. You say "research intramural," \$11.2 million, and laboratory research is \$11.4 million?

Dr. BUCY. Correct.

Senator MAGNUSON. And that adds up to \$29 million and is it over and above what the budget has suggested? We will find out.

Dr. BUCY. No, Mr. Chairman, the budget includes figures.

Senator MAGNUSON. These are higher than the budget?

Dr. BUCY. These are higher.

Senator MAGNUSON. But the \$29 million is the inclusive figure?

Dr. BUCY. Yes, sir.

Senator MAGNUSON. And the training grants, the \$25 million gives you this situation: well, the big amount of \$85 million on research projects, what does it go for? Does it go for salaries?

Dr. BUCY. Sir, it goes for many things. I would say the smallest part goes for salary.

Senator MAGNUSON. Hardware?

Mr. BUCY. Hardware and technicians to care for animals, the animals themselves, supplies, and equipment, yes, sir.

Senator MAGNUSON. What is necessary to put the whole project together?

Dr. BUCY. Salaries, for the most part, particularly the professional personnel, are paid for by the medical schools and hospitals and that would be true at Columbia, wouldn't it?

Dr. MERRITT. Yes.

Senator MAGNUSON. Now, last year, you remember we had considerable testimony on mongolism.

Dr. BUCY. Yes, sir.

Senator MAGNUSON. What progress are we making?

Dr. BUCY. We are making a great deal and this is what Senator Cotton was talking about, a genetics disorder, and in that field, and this has been made by NINDS, by research, in the field of Tay-Sachs disease, also called amiotic family idiocy, it can now be prevented so we should have no more patients with that disease.

It ought to be wiped out just as much as infantile paralysis has been wiped out.

Mongolism is a similar disorder, a genetics disorder and it, too, is not as easy to wipe out as the amiotic family idiocy, but can be wiped out by the new techniques developed in genetics.

Senator MAGNUSON. I thoroughly agree with you, I don't think we have done enough in the whole relationship to the spinal cord fields, and we have very few, we don't have any new center involved here at all.

Dr. BUCY. The centers we are talking about here, Senator, do not exist any place in the world. These are the research centers and they do not exist anywhere.

This is what will now be established and the plan of the Institute is to establish at the beginning at least four of these scattered throughout the country.

Senator MAGNUSON. Yes. We couldn't do this without this extra amount?

Dr. BUCY. No, sir. Absolutely impossible.

Senator MAGNUSON. All right, I thank you very much.

I have no other questions.

Do you have anything you want to add?

Mr. CANIFF. My particular interest, sir, is spinal cord injury and paraplegia.

I happen to represent the first wave of survivors of this. Before World War II, it was not a problem, paraplegia, because the individual so injured didn't survive more than a few weeks or few months, and we are concerned in the National Paraplegic Foundation with support of the proposal that Dr. Bucy has made for the establishment of these two spinal cord injury centers, and in addition through the social and rehabilitation service there has been established what must be the ultimate answer to providing appropriate care which is, as Dr. Bucy has said, not available, and even applying current knowledge, and that is regional systems for serving the spinal cord injured from the point of injury through the rest of his life because it is a lifetime kind of disability.

Our foundation does support the research and demonstration appropriation in the amount of \$7 million to the social and rehabilitation service, and we would strongly support the request that \$1.5 million of that in fiscal year 1972 be available for the establishment of two additional such regional systems, as have been already initially developed and as demonstration projects.

This is the only way we are going to be able to provide any kind of care that will let us do something more than survive. A spinal cord injury is the kind of problem, that, in terms of survivorship, is increasing.

From the Army Surgeon General's record in World War II there were approximately 3 percent of the total wounded Army personnel separated for disability because of paralysis of the extremities and in the Korean war it went up almost to 7 percent and in Vietnam, since 1967, 25 percent of the Army wounded, discharged for disability were because of paralysis to the extremities.

The same kind of increase in incidence of this problem, I think, is relatively closely transferable to the civilian population. We have to develop a system to help these people, not only to survive, but to live with some opportunity for dignity in self.

Senator MAGNUSON. Now, of interest to you people, in the Senate report in this field, in 1971, we expressed, and these are our words, a strong desire to see an expanded effort in stroke research, particularly stroke clinical research center programs.

What happened was the Institute increased the number of project grants investigating strokes but did not do anything about the stroke centers, they didn't expand them.

On the other matter, it says: The committee feels that six additional pilot centers on spinal cord injury were necessary in an effort to focus research expertise on this problem.

The Institute plans to fund the additional spinal cord centers in 1971 and anticipates selecting two.

Dr. BUCY. The anticipation now is to select four, sir.

Senator MAGNUSON. Well, they have come up a little bit, is that right?

Dr. BUCY. Yes, sir.

Senator MAGNUSON. With the 1972 budget?

Dr. BUCY. The planning grants which you refer to there are coming out of the 1971 budget.

Senator MAGNUSON. Well, what do they tell you about expansion of these centers under the 1972 budget?

Dr. BUCY. That is what we are asking these funds for.

Senator MAGNUSON. Would they have to have the extra funds?

Dr. BUCY. Yes, sir.

Senator MAGNUSON. Thank you very much. I appreciate your coming.

Dr. BUCY. I wonder, sir, we have talked largely about neurological matters. I wonder could Dr. Reed say something about otolaryngology?

Senator MAGNUSON. Yes.

Dr. REED. To go back to the training, I want to emphasize that because this is the place in the Institute that it is hurting worst, and really there is where we need the most progress, because we are well aware of the great attention to manpower needs in medicine in general.

I think we have a concept of thinking of the trainees who come from the Institute training programs in various places, New York and elsewhere, as being trainees who are trained to do research.

I think we have to remember that most of these trainees really become teacher investigators. They are doing research, but also teaching, probably with their main commitment being to teaching. These people are not just teaching specialists, ear, nose and throat people, or neurologists, not just teaching the teachers of the future, but these are the same people that make up the academic departments who are teaching the medical students and teaching the family practitioners who are out in the forefront in people care on many of our problems.

I think we have to recognize that the training moneys that we need so badly do many jobs and not just plain research.

Senator MAGNUSON. One last question. There is an advisory council?

Dr. BUCY. Yes.

Senator MAGNUSON. Are some of you members of it?

Dr. BUCY. I have been. I think none of us are members now.

Dr. Reed, you are not?

Dr. REED. No.

Dr. BUCY. No; Dr. Merritt had been chairman of the advisory council at the time I was a member of it.

Senator MAGNUSON. But they have a new set of people?

Dr. BUCY. They change every 4 years and every 2 years we get four more. There are 12 members of the advisory council and six are specialists in the field and six are so-called laymen, but are laymen who are informed and interested in the area.

Senator MAGNUSON. All right. Thank you very much. I appreciate it. To save time, we will put each of your statements in the record in full.

Dr. BUCY. Thank you, sir, for hearing us.

(The statements follow:)

Paul C. Bucy, M. D.

NATIONAL COMMITTEE FOR RESEARCH IN NEUROLOGICAL DISORDERS

Paul C. Bucy, *Chairman*
251 East Chicago Ave., Suite 1230
Chicago, Illinois 60611

Gentlemen:

The opportunity to appear before you to testify as to the needs of the National Institute of Neurological Diseases and Stroke is greatly appreciated. Those organizations which I represent, are the various voluntary health agencies concerned with the prevention, cure and treatment of neurological and communicative disorders. They are more disturbed at this time with the limitations which have been placed upon the programs of this Institute than they have been for many years. It is almost unbelievable that this Institute which has accomplished so much in the less than 20 years that it has been in operation should find itself so severely handicapped and its programs so threatened as they are at this time.

NINDS has completely revitalized neurology and otolaryngology in this country. At the time that it was organized neurology was almost a dying specialty. It was a diagnostic and prognostic specialty with little that it could do in the way of treatment. Most of our medical schools had no department of neurology and many of them had no member of their faculty competent to teach their students about neurological diseases. Today practically all medical schools, except those recently created or in the process of being organized, have teachers in this important field. AND PRACTICALLY ALL OF THOSE TEACHERS HAVE BEEN TRAINED IN THE PROGRAMS SUPPORTED BY NINDS. In addition, the research programs developed in projects supported by NINDS have provided these teachers and other specialists in neurology with new means of prevention and treatment. As a result of research conducted with the support of funds from NINDS L-Dopa for the treatment of Parkinson's Disease has been developed and the research related to the development of L-Dopa has stimulated an entire new area of research in the field of neuro-transmitters which promises

much for the understanding and treatment of other diseases in the future. The tragic consequences of German measles in the pregnant mother can now be prevented as the result of research supported by NINDS. Tay-Sachs disease, a condition which is associated with blindness, idiocy, rapid deterioration and death of very young children, can now be prevented, and susceptible mothers can be assured that their babies yet to be borne will not suffer from this disease. As a result of the studies which led to the elimination of Tay-Sachs disease it will shortly be possible to prevent the occurrence of mongolian idiocy in most cases. Metastatic chorio-carcinoma of the brain which usually affects young women can now be cured as the result of studies conducted in part by support from NINDS. New and better treatments for epilepsy and for myasthenia gravis have been developed. And there have been many other accomplishments which can be directly attributed to the support of NINDS. However, there is still much to be done.

Many of the congenital diseases and deformities of the nervous system which paralyze and disable so many of our children are still poorly understood. Injuries to the brain and spinal cord can not and are not at this time being adequately treated because of imperfect knowledge and the lack of proper facilities. Multiple sclerosis, Huntington's disease, amyotrophic lateral sclerosis, many tumors of the brain, muscular dystrophy and many other disorders, are still crying out for better understanding and treatment.

In the field of Otolaryngology NINDS can also take great pride in its accomplishments. When this Institute began operation otolaryngology, like neurology, was a dying medical specialty. The development of antibiotics had removed the need for most of the operations upon mastoids and the sinuses which had been the principal activity of otolaryngologists. Since the creation of NINDS they have become able to cure many patients of deafness, and cancer of the larynx has become a curable

condition in many instances. However, Dr. George Reed of the Medical School at Syracuse is more familiar with this field than I am and I shall leave him to tell you of the needs of NINDS in the communicative disorders.

We are particularly disturbed about the inadequate appropriations for NINDS because that Institute has been so strikingly singled out for discrimination in the past and particularly in FY 1971. This has been denied but the facts indicate otherwise. \$2,305,000 of the funds appropriated by Congress for NINDS were taken away from that Institute and given to other agencies of the government. The amounts are as follows:

St. Elizabeth's Hospital	\$26,000
Biological Standards	\$308,000
National Cancer Institute	\$1,879,000
National Institute of Child Health & Human Development	\$62,000
John E. Fogarty Center	<u>\$30,000</u>
Total	\$2,305,000

The Department of HEW has said to me that they did not really take this money away from NINDS because even though Congress appropriated it they were not going to release it for use by NINDS. Or to quote them directly, "However, given that \$3,600,000 was not released for expenditure, its subsequent use for pay increase costs is of little consequence". It is also significant that the money taken from NINDS was given largely to the National Cancer Institute which already had had a very large increase in appropriations over previous years, and is now recommended for even more.

The results of the inadequate support of NINDS have been disastrous. During this past year (FY 1971) 25 training programs formerly supported by NINDS have been discontinued, 40 new programs, which had been approved by the various review committees and the Advisory Council, were not supported, and all programs which were supported had their funds cut 15%.

What has been said thus far is in the past. What we are now concerned with is the future -- the appropriation for FY 1972. The President's budget recommends that NINDS have its funds cut to \$95,496,000 for 1972, a reduction of \$3,523,000 below the funds available to NINDS in 1971, and \$10,000,000 below the amount appropriated by Congress. It is noteworthy that NINDS is the only Institute, other than the Institute of General Medical Sciences, to be recommended for a reduction. All other institutes have been recommended for increased appropriations. This can hardly be interpreted as anything but discrimination against NINDS and as having very little concern for those disorders which cripple and disable our children and young people. Neither I nor any other thoughtful person would want to be misinterpreted as opposing support for research in cancer or heart disease. But I, for one, would not go before the mothers and fathers of this country and try to defend supporting research and training for those diseases which threaten older people, like myself and the members of the Administration and the Congress, while denying comparable support for research in those diseases which cripple and disable our children and young people. NINDS is concerned in large measure with such diseases -- epilepsy, cerebral palsy, mongolian idiocy, deaf-mutism, muscular dystrophy, multiple sclerosis, paralysis from injury to the spinal cord, hydrocephalus, spina bifida, amaurotic family idiocy, etc., etc. Any one who tells me that a reduction in the budget of NINDS of \$3,600,000 dollars "is of little consequence" is saying, "We are very concerned about those diseases which are going to kill our old people, but the diseases of our children are of little consequence!"

All of us are concerned with human suffering. We are also concerned with the financial stability of our country. In our presentation here we are concerned with saving money. No one can be so blind that he fails to recognize the billions of

dollars which the elimination of infantile paralysis has meant to this country. The recent studies supported by NINDS which have made it possible to abolish amaurotic family idiocy (Tay-Sachs disease) will also result in the saving of millions. The same will be true of mongolism. The young victims of these disorders form a large part of the population in our public institutions for the mentally retarded. These institutions will be greatly reduced in size as a result of these research successes. Who would not like to see them reduced or disappear just as the hospital wards once devoted to the care of those with infantile paralysis and tuberculosis have disappeared? It has been reliably estimated by insurance companies with extensive experience in paying for the care of paraplegics that it costs \$900,000 to provide care during his lifetime, for one young man paralyzed by injury to his spinal cord. There are between 5,000 and 10,000 young people paralyzed each year by such injuries. There are approximately 125,000 people in the United States today who have been paralyzed in this manner. The cost of their care reaches the almost unbelievable figure of more than \$112,500,000,000. At the present time we can prevent paralysis from spinal cord injury in animals. There is every reason to believe that we can similarly prevent or improve paralysis in man if the opportunity to do so is made available.

To accomplish what is so badly needed we must have research and funds for research. Yet in the letter from HEW of June 3, 1971 I am told, "the budget for research grants for NINDS also reflects some reduction x x x but we do not consider a reduction of \$1.5 million in a \$58 million program as manifesting a change in the priority assigned to this Institute's research program." Gentlemen, I do and I do not see how it can be otherwise interpreted. It should be pointed out that such figures completely ignore the 10% increase in costs which are occurring every year. It is obvious that we are not dealing with a reduction of only \$1.5 million

in the research budget for NINDS, but one of \$1.5 + \$5.8 or \$7,300,000.

In this same letter of June 3rd I am also told that "The savings that accrued from these reductions were in part the basis for other increases in research in dental caries, population control and environmental health sciences." If this is not discrimination against NINDS, what is it? Important as cavities in teeth, the size of our population, and our air and drinking water may be, I protest that they can not be compared to the importance of paralysis, epileptic convulsions, or mental retardation in our children.

The situation in NINDS as concerns research funds is serious. Yet, I am told in a letter from HEW dated December 16, 1970, that "we haven't the funds to do all that is necessary". If we haven't, we should have. We see billions of dollars spent by the Federal Government every day on many things that are far less important for the welfare of the people of the United States. In a letter from HEW dated April 14, 1971, I have been told that "approval of all unfunded grant applications in NINDS is not a practical solution". No one has ever asked for that. We ask only that those applications which have been approved after passing through very careful screening be funded. In that same letter from HEW it is acknowledged that "only a certain percentage of the highest priority research proposals, as judged by non-government experts in the field, have been funded". As a matter of fact, if an approved application does not achieve a priority rating of 150 as compared with the highest possible score of 100 and the lowest possible score of 500 it will not be funded today. No one asks for support for all research applications, only for those which have been approved. But in FY 1971 in NINDS there were \$13,900,000 of approved research grants that were not funded. And it is estimated that under the President's budget for FY 1972 \$18.7 million of approved research grants will NOT be funded this year.

Even those research projects which are currently being supported find their support being reduced constantly. Only this past week a research project director was called by the staff of NINDS and told that his funds for salaries were being reduced by 6%. How does such a director tell the young man working in his laboratory that he is going to have to pay for his food and housing with 6% less salary while his costs are rising 10% each year?

The National Committee for Research in Neurological Disorders is concerned with adequate support for all of the activities of NINDS, but there are some which appear to us to warrant greater stress than others. These are Training, the Perinatal Project, and the Acute Spinal Cord Clinical Research Centers.

As noted earlier the situation with regard to Training is particularly critical. The training programs of NINDS do three things -- they provide teachers, experts in the treatment of neurological diseases, and investigators. Usually these are one and the same man. In any event, the impression left with this Subcommittee last year by the Secretary of HEW that these were only training programs for researchers is inaccurate. The need for more teachers is of the greatest importance. Practically every existing medical school in this country has increased its enrollment of medical students by 50%. There are also 21 new medical schools now in development. More medical students to produce more doctors are important. But they are not important if they are inadequately trained. You can not train more doctors without more teachers. It is also recognized that those doctors who received their medical education 10, 20 or 30 years ago, also need to be taught. They need to be made aware of the progress which research has made. They must know about new techniques in diagnosis and new means of treatment. This can only be accomplished with teachers and experts in the field of neurological disorders to teach them. It is all very well to talk about "improved delivery of health care", about bringing the benefits of new discoveries to the people, but this can not be done

by decreasing the training of teachers and experts in the field. Yet that is what we are doing! In 1971 twenty-five existing training programs were discontinued. Forty new APPROVED training programs could not be supported and all programs being supported had their funds cut 15%.

The President's budget recommends that the appropriation for Training Programs in NINDS be REDUCED by \$3,000,000 in 1972. It is estimated that under this budget for 1972 \$14,300,000 in APPROVED Training Programs will NOT be funded. And that 52% of approved fellowships and traineeships will not be funded. In connection with these reductions we are told two things by HEW (letters of April 14 and June 3, 1971), 1) that this is "an effort to hold back on these kinds of programs until completion of a comprehensive NIH study designed to better determine future manpower needs", and 2) that these funds (\$3,100,000) are being transferred from the training programs of NINDS to the Bureau of Health Manpower Education to provide more efficient administration. We are also told that "it is our (HEW's) intent to support the same number of research trainees in 1972 as in 1971". But that they are going to take away the costs of faculty salaries. In other words, the Training Program Directors are expected to train the same number of trainees but to do it without teachers. HEW will protest that this is not the case, that they are going to transfer these funds to the medical schools to support these teachers. This can only represent an appalling lack of knowledge about the operation of medical schools. Medical schools have seldom been interested in post-graduate training. Their responsibility and their interest has been, as it should be, in the undergraduate training of medical students. Given this money (\$23 million in the entire NIH) medical schools will understandably use it for their pressing needs and not for these categorical training programs. Even the medical schools recognize that this taking of \$23 million out of one pocket and putting it in another will not provide medical education

with any more money. The American Association of Medical Colleges in their testimony before the House Subcommittee on June 10th protested this transfer as "an utterly misleading device". They went on to say that this "transfer is clearly to reduce the training grant programs of the several Institutes". And asked, "Where are the trained investigators going to come from xxx? Where are the new faculty members going to come from to staff the nation's efforts to expand medical education and increase the supply of physicians for the nation? These training programs are fundamental to those national purposes."

Gentlemen, this reduction in our training programs would be disastrous. Instead an increase in the funds for the training programs and for fellowships and traineeships must be made if we who are responsible for improving and expanding health care are to do our job.

The PERINATAL PROGRAM is another of the activities of NINDS which is of great importance, but which is being "shot-down" by HEW. Earlier I have indicated the importance of those disorders of the nervous system that are present in our children at birth -- the congenital malformations and disorders. Many of these result from drugs taken by mothers while they are pregnant and from diseases which they suffer. In an effort to learn which of the drugs, which of the diseases and what other factors acting upon pregnant mothers are responsible the Perinatal Program was developed. Over the past 10 years thousands of mothers have been carefully observed and studied, as have their children. Obviously it requires years of repeated observation of the children to determine whether they have been damaged and in what way. The period of observation is now approaching its end, but until it is completed the information accumulated can not be analyzed and evaluated. Yet the President's budget proposes that we stop short of our goal. That the accumulation of information

be stopped short of that essential to the study and that the data obtained not be fully analyzed. This would be an inexcusable waste of the approximately \$100,000,000 which has already been spent on this very worth while project. The proposed reduction of \$2,100,000 in the budget of NINDS for the perinatal project is totally unacceptable to anyone concerned with the health and welfare of the future children of this country.

The Acute Spinal Cord Injury Clinical Research Centers provide a happier and more optimistic note. Last year you provided funds for planning or feasibility grants to study the possibility of developing such research centers. The applications for these feasibility grants are now being evaluated and the grants to those institutions with approved applications will shortly be awarded. NINDS will then be ready to move ahead in compliance with Congress's directive and create these Spinal Cord Injury Research Centers. To do so they will require funds specifically designated for that purpose. It is recommended that \$5,000,000 be provided in 1972. It is anticipated that four such centers will be created and that they will require \$1,000,000 each annually. The other \$1,000,000 will be needed to support other research in spinal cord injury which is planned for other institutions which will not have such centers. It must be recognized that acute spinal cord injury research centers do not exist any place. They will have to be constructed or wherever possible, existing space will have to be remodelled and renovated. Because of this need it is important that the appropriations for this purpose be so made that greater freedom will be allowed to use these moneys for construction and remodelling than is usually the case. These four centers will be national, not local, centers. It is not to be expected that local institutions or local political agencies will provide the funds for these needs.

The National Committee for Research in Neurological Disorders represents all of the voluntary health agencies (citizens agencies) interested in neurological and communicative disorders. It recommends that the Congress make the following

appropriation for NINDS for FY 1972:

Grants

Research Projects	\$85,000,000
Fellowships	5,000,000
Training Grants	<u>25,000,000</u>

Sub-total \$115,000,000

Direct Operations

Research (Intramural)	\$ 11,200,000
Collaborative Research & Development	11,400,000
Biometry, Epidemiology & Field Studies	3,500,000
Training	-0-
Review & Approval	2,300,000
Program Direction	<u>600,000</u>

Sub-Total \$ 29,000,000

Grand Total \$144,000,000

The appropriation of this amount will only enable the National Institute of Neurological Diseases and Stroke to fund those applications for Training and Research which are approved and to continue those projects now under way. This is not a request for money to undertake new ventures, desirable as that might be. Failure to appropriate adequate funds will have sad consequences. Already trained men are leaving research and teaching because they can not be supported and are discouraged by the attitude of the Federal Government. Sufficient new men to replace them are not and can not be trained, under the existing policy. The cost of continuing the present policy in terms of the health and welfare of our people and in terms of dollars which will have to be needlessly spent for the care of the paralyzed and disabled is almost incalculable.

Respectfully submitted,

Paul C. Bucy
Paul C. Bucy, M.D., Chairman
National Committee for Research in
Neurological Disorders

STATEMENT BY GEORGE F. REED, M.D.

Mr. Chairman and members of the Committee, I am George F. Reed, M.D., Professor and Chairman of the Department of Otolaryngology, State University of New York, Upstate Medical Center, Syracuse, New York; Secretary for Continuing Education in Otolaryngology, the American Academy of Ophthalmology and Otolaryngology; a Director of the American Board of Otolaryngology and Chairman of its Examination Committee; Delegate for Otolaryngology to the House of Delegates of the American Medical Association; Member of the Board of Directors, American Council of Otolaryngology.

I appear before you in behalf of the National Committee for Research in Neurological Disorders, representing the fields of Otolaryngology and Communicative Disorders. In this capacity, I wish to state that I fully subscribe to the proposed Citizens' Budget for the National Institute of Neurological Diseases and Stroke for FY 1972. I also hope to impress upon you the dire need for appropriation of at least this amount of money to allow those of us who are responsible for the delivery of health care in this area to carry out our responsibilities.

As a physician and educator who is greatly concerned not only with the need for specialists and teacher-investigators in my own field but also the needs of supplying adequate health manpower to the nation,

allow me to voice my concerns relative to the possibility of inadequate funding for the National Institute of Neurological Diseases and Stroke. I would like to present these concerns in the two areas of greatest importance--training and investigation.

In the field of training, we face a great dilemma. Our government has called upon us to increase the number of physicians to overcome a shortage in available medical manpower. We are told that 10,000 specialists in the field of Communicative Disorders will be needed by 1980. We agree with its prognostication but recognize that, at present, we have only half that number. We are told that, by 1976, to provide proper teaching in our field that we will need 765 teacher-investigators. At the present time, we have approximately 300. In a recent poll carried out among our professionals across the country specializing in the Communicative Disorders, we found that one-third of the practicing doctors in this field replied that there were inadequate services available to take care of the communicative problems in their communities. In order to produce adequate numbers of young physicians capable of handling these problems both as specialists and family practitioners, we simply must have continued expansion of training and supportative research facilities if we are to meet these demands.

In examining the record, we find that the President's budget for 1972 calls for a decrease of over \$3 million for training in the National

Institute of Neurological Diseases and Stroke. We are told that this de-emphasis of training is on the basis that we should not be training more "researchers" knowing that there will not be funds available for them to carry on their research after they are trained. This, gentlemen, is an extremely dangerous misunderstanding of the concept of training in our field. The training programs of the Institute are not primarily designed to train researchers but rather to train teacher-investigators. It is extremely important to recognize this concept of an academician in our field as one who is skilled and trained in both teaching and research. Very few of our trainees go into full-time research positions. By far, the great majority become teacher-investigator academicians. It is also important to note the relationship between teaching and investigation in the field of medicine. Certainly, no teacher worth his salt would be content to merely teach old facts or new facts and information developed by someone else. His intellectual curiosity in most instances demands that he also make contributions to the overall fund of knowledge and, as part of his academic career, must have the opportunity to carry on clinical or basic investigative studies. In this light, it is apparent that training programs in our field are primarily designed not to produce "researchers" but rather teachers and academicians who are so sorely needed to solve the health manpower needs of our country.

Training in our field of Otolaryngology and Communicative Disorders is especially unique. Our communicative disorder scientists, audiologists and speech pathologists are relatively few in respect to the requirements for patient care and community needs.

Otolaryngologists as specialists have heavy surgical and clinical responsibilities. Accordingly, so many of the people in our field are absorbed in attempting to meet the community and national needs that relatively few are willing to make the sacrifices in time, effort and income to become academicians and man the academic departments in our training institutions to provide the teaching and investigative efforts so sorely needed.

Special incentives and support are necessary to develop personnel necessary to build academic departments for dissemination and development of knowledge in our area. During the past ten to fifteen years, with the support of NINDS, we have been able to make significant progress in the development of such departments throughout the country, despite the unique problems we have faced in developing teacher-investigators in our field. We must not allow this impetus to regress. It is these very academic departments which alone have the ability and capability to satisfy the health manpower needs in the field of Communicative Disorders and Otolaryngology. In this regard, it is important to recognize that high level academicians,

who have been produced by NINDS support, function not only as teachers of the specialists and teachers of the future but, more importantly, as teachers of all physicians and communicative scientists of the future, not only in their basic medical school education but also throughout their lives in the field of continuing education.

Approximately 20 million people in this country have problems in the field of speech and hearing. Many surveys have indicated that approximately 25% of all problems treated by the family practitioner fall in the area of the ear, nose, and throat. These two facts alone give an indication of the importance of our area of interest in the overall health needs of the nation. The training programs of the NINDS must be adequately funded to continue the development of academicians and academic departments to provide the necessary teaching for specialists, teachers of the future, medical students, and all practicing physicians. These academicians are essential to bring to other physicians and students the latest and most modern forms of therapy so that they, in turn, can carry and deliver this quality care to the people.

I would now like to turn my attention to the problem of research, or, as I prefer to refer to it, investigation. I would like to reiterate at this point that, when speaking of research and training for research, I am not thinking solely of the full-time "researcher" but, rather, in

the context of the academician or teacher-investigator who is so important in the development of new information in our field. In medicine, in general, and, especially, in our field of Communicative Disorders we cannot lie dormant. We must provide new knowledge to help solve the numerous unanswered problems that we see daily. To accomplish this, we must have the financial means necessary to support the investigative efforts of both full-time people working in this area as well as our teacher-investigators.

With the assistance of NINDS and other agencies, we have made considerable progress in recent years. We have developed techniques to restore hearing in many patients who would be doomed to a life of deafness; we have developed techniques to remove diseased portions of the ear and replace them with other materials to save hearing; we have learned much about the method in which viruses work to destroy hearing in the fetus; we have learned methods to treat adequately many forms of cancer of the head and neck and saved many thousands of people who would have otherwise died of this dread disease; we have developed techniques which allow us to restore normal voice in patients with paralysis of a vocal cord; we have learned techniques which, in many instances, allow us to preserve portions of the larynx for vocal purposes, rather than having to remove the entire voice box as previously. I could go on with many other advances that have been made by our investigators but merely mention these as a few

to indicate that the funds that previously have been allocated to research through NINDS have certainly not been wasted or ill-used.

We have only scratched the surface, however, in our efforts and the unsolved problems facing us at present are myriad. Allow me to mention just a few. We know very little about genetic patterns that result in hearing loss in man which, if understood, could offer the possibility of controlling much deafness in the future. Otosclerosis, a common cause of hearing loss, may very well be of genetic origin. Indeed, we have surgical procedures to help the hearing loss in these patients but, as yet, investigative activities have not demonstrated its cause. How much better to be able to have the knowledge to prevent such a disease rather than merely struggle against the end product.

We know very little about the biologic effects of noise on the human ear and the human personality and physiology. This subject of noise in the environment has received considerable attention of late but really only at a very superficial level. We make efforts to decrease the amount of extremely loud noise from various sources; we caution people to wear protective ear defenders and ear muffs in the presence of loud noise; we recognize the damaging effect to hearing of factories superjets, discotheque music, etc. but, indeed, we know very little about the basic effect of noise on the neural end organs within the ear

and the central nervous pathways. We are in the process of attempting to set standards of tolerable noise of fairly loud intensity over relatively short periods, but what of the effect of impulse noise and long exposure to low frequency and low intensity noise? It is not enough to merely try to control the offending agent. We must have a better understanding of its basic biologic effect on the ear before we can truly understand the problem and control it sensibly.

We are struggling with the problems of neoplasms which are peculiar to the communicative and sensory organs in our area. In the larynx we need to know much more about both malignant and benign tumors whose treatment often produces such devastating effects to voice and speech. We have made significant surgical advances on acoustic neuromas which are tumors involving the auditory nerve but, as yet, do not understand the basic nature of the tumor to influence its growth or prevent its occurrence.

We must know a great deal more about the mechanisms of stroke to help in its early detection and possible prevention. A better understanding and more sophisticated methods of study of the blood supply to the inner ear and balance mechanism of the ear might very well provide clues to impending strokes.

In the whole field of language disorders, we are really extremely ignorant. Is it not paradoxical that man who is the only creature who

communicates on a complex level by language has so little basic knowledge about this highly complex communicative mechanism. We ascribe names to the various problems of language disorders such as aphasia, dysphexia, etc. but, in reality, are only on the border of beginning to understand what goes on in these physically, emotionally and financially debilitating disorders. Is it not of utmost importance that we learn to understand the basic processes of these disorders in the young when something could be done about it and thousands upon thousands spared the doom of a lifetime of inability to communicate with their fellow man vocally.

These are but a few of the problems in our area in dire need of investigation. Gentlemen, we must allow our scientists to continue their investigations in an attempt to find the cure and prevention of these and other disease processes which strike at our critically vital organs of human communication.

I hope that I have been able to provide you with some additional insight into the extreme importance of both training and investigation in our field. The President's budget for 1972 for the National Institute of Neurological Diseases and Stroke falls far short of what is necessary to do the job which is so imperative. Gentlemen, I urge you to appropriate funds for NINDS in the amounts recommended in the budget submitted by the National Committee for Research in Neurological Disorders.

Statement of Dr. H. Houston Merritt

I am Dr. H. Houston Merritt, the Henry and Lucy Moses Professor Emeritus of Neurology and Dean Emeritus in the College of Physicians and Surgeons and Vice-President Emeritus of Columbia University.

I wish to thank you for giving me this opportunity to appear before you to support the budget for the National Institute of Neurological Diseases and Stroke as submitted to you by the National Committee for Research in Neurological Disorders.

I have been connected as director or medical advisor to the majority of the lay health organizations who have concerned themselves with the prevention and treatment of diseases of the nervous system. I have also served on the study section and councils of the National Institute of Mental Health and the National Institute on Neurological Diseases since its inception. More recently, I have been a member of the council of the National Institute of General Medical Sciences.

It has been my pleasure to observe and participate in the growth of neurology in the United States and I have seen it develop into the foremost position in the world.

Forty years ago there were only a few of our medical schools that had a department of neurology and there were only a small number of places available for the training of our medical students and residents in this field. Research at that time was confined to a few departments of anatomy and physiology. Now, we have training programs in clinical and

investigative neurology in practically every medical school in the United States. This great advance has been accomplished through the efforts of your predecessors, particularly Senator Lister Hill of Alabama, aided by the citizens who were instrumental in founding this Institute and who have worked diligently to foster the growth of neurology and neurological research.

We are all greatly concerned at the present time in making available to the citizens of our Country the benefits of the results of all the research that has been done in order to improve their health. It has been decided that one of the main avenues to accomplish this goal is to increase the number of physicians.

All of our medical schools are now increasing their enrollment and are attempting to shorten the period between graduation from high school and the clinical practice of medicine. Their goal is to make the best possible health care available to all the citizens of this Country. This can be done, but in doing so, we must not forget that it is necessary to train more teachers and it is paramount that we continue with undiminished vigor our efforts directed toward the determination of the cause and treatment of diseases of the nervous system. I need only remind you that all of the doctors in the world would be unable to cope with the scourge of infantile paralysis if our scientists had not determined the cause of this disease and had developed a vaccine that has almost eliminated it from this Nation and other Nations of the world. This was done by the efforts of the Department of Health, Education and Welfare aided by the lay health organizations, particularly the National Foundation of Infantile Paralysis, under Mr. Basil O'Connor.

There are many programs in the National Institute of Neurological Diseases and Stroke which have made great advances, but which have not as yet conquered such diseases as cerebral palsy, multiple sclerosis, epilepsy and the degenerative diseases of the nervous system. We are on the threshold of great new discoveries, particularly in the metabolic diseases of the nervous system and those due to the filtrable viruses.

The health of our citizens depend on research. We must continue our efforts to increase the number of doctors, but at the same time, we must see that doctors are available to train the enlarged student body and to develop new forms of treatment for diseases.

I respectfully pray that you consider favorably the budget presented by the National Committee for Research in Neurological Disorders and approve it. We are obligated to alleviate suffering of the many patients who are afflicted with diseases of the nervous system and we are also obligated to prevent the development of these diseases in untold numbers yet unafflicted. May I thank you again for allowing me to speak in their behalf.

Statement of Charles Caniff

I am grateful for this opportunity to join Dr. Bucy in presenting testimony in regard to the catastrophe of spinal cord injury and its almost universal result of paraplegia or quadriplegia.

I am Charles Caniff, a member of the Board of Directors of the National Paraplegia Foundation, and Chairman of its Community Services Committee, which I represent here today. I have recently retired as Assistant Director for Planning and Development of the Joint Commission on Accreditation of Hospitals, where I still maintain an association for special projects.

While spinal cord injury is not a new affliction, it is only within the last thirty years that survival beyond a few weeks or months for persons so injured has become a reality. Prior to that, paraplegia (or quadriplegia) was not a medical, social or economical problem; its victims invariably died. The basic and clinical research that developed new life-saving drugs, medical, surgical, nursing and rehabilitative procedures, has created a growing population of survivors, estimated to be between 85,000 and 125,000 today, and is increasing by some 5 to 10,000 each year.

But it is survival with a complex of problems that was hardly believable thirty years ago, and its total impact is hardly conceivable to anyone other than those experiencing the tragedy of paraplegia.

The paraplegic has lost voluntary control of bodily excretory processes; has loss of voluntary motion and sensation below the point of injury. Under the best of circumstances, the paraplegic lives with the actuality or constant threat of urinary infections, pressure sores, and a host of medical, psychological and economic problems that run the gamut of human catastrophe.

Unfortunately the "best of circumstances" are the rare exceptions in this country. In testimony at previous hearings of this subcommittee, paraplegics and family members have described the personal tragedies, not only of paraplegia itself, but of the results of unavailable or inadequate medical care and rehabilitative services. This is not surprising in view of the complexity and catastrophic nature of spinal cord injury, and the fact that we have no organized system to assure that competent, appropriate and immediate care and services are available and provided as needed. There are more than a quarter million licensed physicians in our country, and more than 7,000 hospitals. In our present situation it is highly probable that the newly injured paraplegic will be hospitalized in an institution that does not have adequate facilities, equipment or personnel to provide proper care, and will be treated by physicians with little, if any, experience with the unique and complex medical problems associated with spinal cord injury.

The Foundation is grateful for the positive steps of the Congress directed to this problem. As a result of your actions funds have been made available through the National Institute of Neurological Diseases and Stroke to award grants for feasibility studies for creation of pilot "Acute Spinal Cord Injury Clinical Research Centers", and through Research and Demonstration funds appropriated for the Social and Rehabilitation Service, grants have been awarded for establishment of two "Regional Spinal Cord Injury Centers". Limited planning has begun for a possible third regional center.

The National Paraplegia Foundation supports these initial steps, and urges that this pattern of development of clinical research centers directed toward improved care and cure in coordination with development of regionally organized sources for adequate care, be fully developed during this decade of the seventies.

In June, 1971, the Medical and Scientific Advisory Committees of the Foundation met to review present knowledge, report on new research and share perspectives on providing optimum care to the spinal cord injured. Thirty distinguished physicians and basic scientists were present.

In addition to their reports and discussions on research and clinical treatment, these men addressed themselves to the immediate problem of assuring that every spinal cord injured person have opportunity to receive optimum care and treatment.

The combined committees unanimously approved a statement of the basic components of a plan for achieving this objective, and recommended that it be adopted by the Foundation. At its annual meeting of Members, this basic plan was unanimously adopted by the Foundation.

The five basic components of the plan for A NATIONAL NETWORK OF REGIONAL SPINAL INJURY CARE SYSTEMS are:

1. A National Network of Regional Systems for the Treatment of Spinal Injury should be established. A region is defined as a medical service area and not limited to a political or governmental administrative boundary. A region should serve approximately a minimum population of 2,000,000 and a maximum population of 4,000,000.

2. The Federal Government shall define broad specifications for these systems and let contracts to primary system contractors for their development and implementation. Sub-systems will participate on a sub-contract basis. Primary contracts will be awarded to applicants on the basis of their potential for creating effective total systems.
3. Each region will organize and develop a customized system to meet both the Federal specifications and the unique characteristics of its region.
4. Regional systems will be directly funded by Federal funds up to:
 - A. \$250,000 per year for systems development, data collection, and systems analysis.
 - B. Up to \$500,000 per year per million population served as supplemental funds for medically indigent patient care.
5. Selected systems having outstanding basic and clinical research capability will be awarded contracts for basic research and clinical investigation leading to prevention, amelioration and correction of spinal cord injury. Five to ten such systems should be designated and funded up to \$1,000,000 each per year for this special responsibility.

This plan is completely compatible with the beginning steps being taken, both through NINDS and SRS. The costs involved are not additional monies, but rather the application of costs that are presently being expended (upwards of \$25,000 per individual paraplegic for medical care alone) for inadequate, often inappropriate care, resulting in unnecessary suffering, wasted dollars amounting to billions, and the incalculable social costs of thousands of paraplegics who are alive but not truly living.

The National Paraplegia Foundation commends this plan to you as the best thinking of the most experienced physicians and basic scientists who are in the field of spinal cord injury, and with the full support of its chapters and individual members, most of whom know from bitter personal experiences the inadequacies of present resources.

Appropriation of \$5,000,000 annually of designated funds for development of Acute Spinal Cord Injury Research Centers through NINDS will be a basic step in the search for an ultimate cure, and will provide the foundation for development and operation of improved acute care capabilities in the proposed regional system.

The Foundation proposes further that appropriations for Research and Demonstration through the Social and Rehabilitation Service be established at \$7,000,000 for fiscal 1972, and that \$1,500,000 of these funds be designated for development of two additional regional spinal cord injury systems. We also support the funding of two rehabilitation engineering centers, where the development of prosthetic and adaptive equipment, vital to the functional capabilities of the paraplegic as well as other types of major disabilities, can be effectively pursued. We support the appropriation of \$500,000 for this purpose.

With Congressional action on these two points, research in acute care and cure of paraplegia, in coordination with beginning steps in development of organized regional systems of service delivery, we will have a consistent framework for effective attack on this long neglected problem.

STATEMENT OF DR. GEORGE E. SCHREINER, PROFESSOR OF MEDICINE, GEORGETOWN UNIVERSITY, REPRESENTING NATIONAL KIDNEY FOUNDATION

REGIONAL MEDICAL PROGRAM : KIDNEY ACTIVITIES

Senator MAGNUSON. Our next witness is Dr. Schreiner of the Kidney Foundation.

Dr. SCHREINER. Thank you, Senator Magnuson.

I appreciate the opportunity to be here.

The Kidney Foundation would like to thank you for your continuing interest.

As was brought out in your previous comments, planning for new areas in medicine requires a kind of long view and persistence, not just a quick in and quick out. You have been very supportive, I think, of kidney activities.

We would particularly like to report back on the progress in getting the kidney passed as part of the renewal of the regional medical program bill, which was largely due to your efforts.

I would also like to thank Senator Byrd for passing, or his role in passing a \$10 million supplemental appropriation. We share the regret, however, that both of these acts, the earmarked money for kidney and the supplemental appropriation, the effect of these has been almost totally negated by the administration's putting \$34.5 million in the reserve fund so that the regional medical program has barely been able to subsist in its previous projects and has not been able to, very effectively, add many kidney programs which have been forthcoming.

Senator MAGNUSON. They have not spent the money, have they? They froze it.

Dr. SCHREINER. Yes; they did not get it.

Senator MAGNUSON. For the record right here in 1971 there was \$111 million in RMP's and the budget cut it almost in half to \$52 million, and it withheld \$44 million that we appropriated. That is a pretty good slash.

Dr. SCHREINER. Yes; and this has the effect, as you well know, if you have five kids in the family and adopted three more and kept the same budget and all of the other kids were getting the same amount of allowance, and the effect would be it hurts the new ones, the ones you added, so the kidney program, which has to be a strong addition to the regional medical program, has greatly suffered because there simply has not been any new dollars to go along with the addition, so many of these projects that are selected around the country, and I, myself, for example, over the years have spent hundreds of hours preparing three, but they don't even get to the consideration phase because of no money to fund them, so it becomes an exercise in futility.

I would like to point out, Mr. Chairman, we have a prepared statement which I will insert and am not going to read.

Senator MAGNUSON. Well, it is short and if you can skim through it here so we can interrupt you with some questions that will save a little time.

I think that we know, or we think that the regional medical program has been very good up to date. It has its faults, as you point out, it has been successful, and one thing I wanted to ask you is this: It has been pretty well accepted, has it not, my the medical profession?

Dr. SCHREINER. Yes.

Senator MAGNUSON. And with volunteers—there is some argument?

Dr. SCHREINER. To be honest, I approached it kind of negatively myself. From the background of academic medicine I don't think anybody really appreciated it would be possible in the short term to get all of the segments of the community to sit down and talk about anything.

Senator MAGNUSON. Yes.

Dr. SCHREINER. I think the salutary effect is that over 10,000 volunteer workers have served on the various committees around the country. This has been an intangible but very great educational thing.

Senator MAGNUSON. You mentioned 30,000 positions.

Dr. SCHREINER. Yes, have received training or educational benefits.

Senator MAGNUSON. Or participated in it?

Senator MAGNUSON. Where do you get the figure, from AMA?

Dr. SCHREINER. No, this is from the regional medical programs administrative record on the sizes of the various educational programs that have been funded, but there has been 10,000 people actually serve in an administrative role in various committees and advisory groups and so forth, so that they had gotten their hands dirty and the impact of this is astounding.

I have been out on several site visits in communities where the people representing various institutions had not talked to each other in the last 10 years and now finally are sitting down and planning co-operative programs along the lines you mentioned, namely, to establish priority within themselves before going to the community.

I think this is an essential thing.

Senator MAGNUSON. Is the kidney program sort of folded into the regional medical program?

Dr. SCHREINER. On paper, but no dollars.

Senator MAGNUSON. Well, you point out that out there you are working with 12 universities, sort of a network?

Dr. SCHREINER. Yes.

Senator MAGNUSON. And bringing in transplanted kidneys from all over the area?

Dr. SCHREINER. Yes, that project was originally funded on a contract from the NIH and there was an application in to the regional medical program for maintaining it.

Really, right now, the best working network is that and we now have 14 universities tied into this.

For example, just to give you the case we had from Atlanta, we were notified about 4 o'clock in the morning that a patient died in Grady Hospital in Atlanta who was a good kidney donor.

Our patient was sitting at home, sleeping at home, and we called her up and she was in the home dialysis program and we called her up and brought her to the hospital and 5 o'clock in the morning they took the kidney out at Atlanta and put it on the 6 o'clock Delta Airline jet and it was in Washington National Airport by 8 and was in the patient working by 9.

This was done with commercial airlines as, you know, a favor, and the only cost in the whole program is the computer record and the typing serum and the typing laboratory, which is now in Richmond.

We have two, one in Richmond and one in Duke at Durham for the program. This has taken care of the whole east coast and it is really a marvelous example of how you can cooperate.

Who would have thought 5 years ago we would be shipping a kidney to Hopkins and they would be shipping kidneys to us and we would be shipping kidneys to Duke. That wouldn't happen 5 years ago. This is really the impetus of this kind of program, to get people working together.

Senator COTTON. What is the age limit that you can use a person's kidney?

Dr. SCHREINER. There is no absolute chronologic age, Senator Cotton, but it depends on the degree of arteriosclerosis in the vessels and whether or not the kidneys are functioning well.

As you well know, there are some 45 years old, or 45-year-old people who are old and there are some 70-year-old people who are very young physiologically, so it depends on the state of their vessels and kidneys.

In general, we prefer them to be under 60. But there is no rigid measure there. We have to evaluate the patient.

Senator MAGNUSON. On page 3, there is something interesting to me, "Naturally the patient survival rate is much higher because in most cases of rejection the patient can go back on the artificial kidney machine."

Dr. SCHREINER. Yes. This figure here is transplant survival and not patient survival. In other words, the patient survival is much higher, because, well, you just pointed out the patient can in most cases now go back to the machine and have a second transplant.

Senator MAGNUSON. Are the machines available to everybody? This has been a tough problem.

Dr. SCHREINER. Yes. Well, the machines are available to anybody that can afford them.

Senator MAGNUSON. Well, this is the problem.

Dr. SCHREINER. In group terms. They are not available because the system for making them available has not been developed.

Senator MAGNUSON. Bioengineering has not been developed?

Dr. SCHREINER. Engineering has developed, but the delivery health system, in other words, we have the hardware and have had it for years.

Senator MAGNUSON. As I understand it, it is not the machine that is the big cost, but the operation.

Dr. SCHREINER. Yes, but even the cost is not so great. It is simply somebody making up their mind that there is a decision this is going to be delivered to the people. This decision has not been made in a forthright manner. The United Auto Workers, for example, have beaten the Government to it because they have put it in their union contracts and there are several large unions that have put it in their union contracts as a right and here we have been sitting on this, and, as you know, your friend, Dr. Scribner, the first patient 10 years ago, and we still have not made a basic decision that we are going to deliver this to the people.

Senator MAGNUSON. Yes. Every once in a while, you will see a church group or a lodge or somebody having a benefit to pay for a kidney machine for Joe Doaks or some of the members are trying to raise the \$10,000 or \$20,000 that is needed. That still exists?

Dr. SCHREINER. Yes. We have had applications for grant support in and here we are covering 3 million people in the District of Columbia and we have been trying to get a system for some kind of delivery to the people right here in the Nation's Capitol and the only thing we have been able to get going so far is a little bit of private support and have not been able to get really one bit of support.

Senator MAGNUSON. This is off the record.

(Discussion off the record.)

Senator COTTON. Does the present cost vary in accordance with the conditions and location of the individual patient? I have asked every year questions about what the cost was and I have gotten all kinds of answers and never got anything jelled.

Dr. SCHREINER. I appreciate your problem and it is a real one, because you would get the same answer, for example, if you asked General Motors how much it cost to handcraft a Cadillac versus what the cost to do it on the assembly line in organized processing.

The costs have been very high in areas where you had to go into an individual operation, one doctor, one nurse, one machine, one room, which is the most expensive possible way to do it.

If you organize, and we have 16 people at home in the District of Columbia here, which is a very high rent district in terms of supplies and salaries and so forth, and we can do it for somewhere between \$5,000 and \$6,000 a year for maintenance on home dialysis.

If you go into a hospital, then you are talking about the day, or the minute you put a foot in the bed that is \$100. So you change the whole numbers game if you are going to do it in a hospital.

If you do it in a center, it is a little cheaper. The center costs now run for everything, and this is doctors included, around \$200 a dialysis. So this is where the center is outside the actual main part of the hospital, very much like you have in the Swedish Hospital in Seattle.

It would be roughly \$200 a dialysis at the present time, so a person on it three times a week you would be talking about \$30,000 a year.

That is quite different from the home figure of \$6,000, I would say, but it is because you have to support a structure, you know, I mean you have to build something like a House Office Building and Senate Office Building in which to put this and the costs of construction are so high these days that all of that has to go into the building of a center if you are going to do it in a hospital wing.

Now, there are other ways to do it. You can do it at home and you can do it in a nonhospital center and reduce the costs appreciably.

Senator COTTON. You can't have home dialysis for isolated homes, can you? Don't you have to be in the city where there are a lot of people or a large number of patients that are within a certain radius, and it would be very costly to go 50 miles to a country town.

Dr. SCHREINER. I am not saying it is ideal, but it is being done, Senator, in Mississippi, say, under the regional medical program they are putting machines in back of a panel truck and taking them out to small towns.

In Illinois, they are setting up store fronts dialysis centers in southern Illinois, being supported by State funds in Illinois.

What I am trying to say, if you really want to do something, you know, there are a lot of ways to cut the cake, but the problem is that if there are no plan funds, no pilot funds and not support, no one can do the experiment and delivery.

Senator MAGNUSON. But the funds are not there. I remember when we had the terrible ordeal in our town when they had to put a great number of names in a fish bowl and draw two of them out and the rest of them had to go and die, but we are making progress.

Dr. SCHREINER. Yes.

Senator COTTON. There is some of that now?

Dr. SCHREINER. Yes, about one out of 10 patients.

Senator COTTON. I don't know about the chairman, but as a member of the committee I get more letters on this subject than any other particular item in the whole medical program. I don't know how to answer those letters. I well remember, whether it was last year or the year before last, we were given such a large figure that we would have to provide, to have anything approaching universal treatment. It was beyond our capacity.

Now what I gather from what you are saying today is this: A program could be promoted that would not cost all that much and would bring about delivery to many, many more patients, if not to everybody. Is that correct?

Dr. SCHREINER. There is no question about that, Senator Cotton. The question or trouble with that figure which I was against using, by the way, because it came from the concept that the Federal Government has to pick up everything including the streetcar fare when treating a patient and that has never been true of American medicine and does not have to be true of this kind of program, but what you need is to plan a facility, train the people, and give some support at various points for those who have economic difficulty in meeting this and then the people will do it themselves.

Most of these programs have become self-supporting once underway. The startup costs nobody can do anything with. But once underway, they can be very self-supporting, and even in training we have situations in which, for example, in one situation a nurse has worked in the hospital and learned how to do it and got married and retired to the suburbs and is now helping one of her neighbors in home dialysis.

There we have added somebody to health manpower pool. So Dr. Scribner's chief technician was a gas station attendant and our first technician was a disabled retired Air Force technical sergeant on Government pension.

We took him off and trained him to be a technician. We are not robbing Peter to pay Paul, but trying to save people.

Senator COTTON. To get down to brass tacks, Doctor, what should we as a committee do or can we do about trying to get some organization into this program?

Dr. SCHREINER. Well, I think that regionalization offers the best theoretical framework for the delivery of this kind of development of nursing care, not just kidney but also other things you are hearing about in the committee.

I think the concept of regionalization is sound. Granted that, you know, the discussion of sound concepts is not the simplest thing in the world, but the way to improve the discussion of sound concepts is not to avoid giving them money for development or for background work, but the way to do it is to give the money in such a way that it will produce more efficient management and more efficient administration.

I think if we could get these cutbacks into the program and get it funded at some decent level with the emphasis put, then I feel actually

the kidney field could point the way as a model for how to regionalize medical care, not just kidney patients but here is something you can work with that is tangible.

Senator COTTON. Are you talking about setting up a new and separate regionalization for this or utilizing the regionalization we have?

Dr. SCHREINER. You put it in the bill, for which we thank you, but there is no money to follow it up. The Senate passed and added the kidney program to the regional medical bill so the authorizing legislation is there and it is fine and I have no quarrel there at all, but it is that nothing has been put behind it to make it work.

Senator COTTON. How much money would it take to make a real start on organizing such delivery?

Dr. SCHREINER. Well, we have this situation.

Senator COTTON. Extra money I mean.

Dr. SCHREINER. Yes. We estimated last year it would take a minimum of about \$20 million. Your Appropriations Committee earmarked \$15 million, but the budget here not only took away that \$15 million but took away another \$15 million so there was no possibility of getting anything in the kidney program, and now the programs have advanced so that the restoration of that plus the supplemental, which was also not expended, which was a total of \$44 million, I think that would be a reasonable sum for this year to pour into this program for actual sound development.

But the projects are all written and some of them have been revised seven times at least over the last 3 or 4 years. It is not a question of looking for projects. I am on the national council and I have been out on site visits and I know how many projects are in the wings.

Senator COTTON. Well, even if we put the money in, I don't know that they will spend it. If they didn't spend it before, couldn't they do the same thing to us again?

Dr. SCHREINER. I don't have an answer to that.

Senator COTTON. We don't either.

Senator MAGNUSON. Well, what they did, Doctor, was this—we recommended this proceeding under the regional medical program and specifically pointed out the kidney disease, as you point out we even added the name, but what happened was they said downtown, and I don't think this came from the NIH staff but they said: The amount appropriated in excess of the amount provided by the House has been placed in the reserve.

They just took a meat ax over the whole business which includes kidney.

Senator COTTON. Under "Regional Medical Programs," the Department has indicated that they intend to spend some of the money this year that they carried over from last year.

Senator MAGNUSON. Yes, that is why they cut it.

Senator COTTON. They obligated \$70 million plus the last year and will obligate \$75 million plus this year on the Regional Medical Program."

You don't know how much of that, if any, would be devoted to kidney?

Dr. SCHREINER. Well, probably very little, because, you see, here, you have ongoing programs in heart, cancer, and stroke, and I would just like to second the remark I heard you make before, the last thing

in the world I would want to do is cut ongoing programs in heart, cancer, and stroke.

I don't want to say to take away the money from there and put it here because that is wrong, but if you have a new field being added you have to put in money to go with it.

Senator COTTON. Suppose we added \$20 million to be used for this purpose, and they might not use it, but if we added it and earmarked it for that purpose, would it make a real start?

Dr. SCHREINER. I think it would. I am a political neophyte so I don't know the mechanism. It seems to me anything you do to highlight and underline the need is going to be helpful.

Of course, I just don't know how to cut this roadblock between what is appropriated and what is spent.

Senator COTTON. Assume, and I guess we can assume that we know something about it, because the Department has some dependence on our committees, but assuming that we earmarked a certain sum and they did spend it for this purpose, would \$20 or \$25 million make a real start?

Dr. SCHREINER. Yes, it would. Yes, it would.

Senator MAGNUSON. Then on your last page, Doctor, you mention the total institute program, you go along with the coalition for health funding, that that be increased from 134 to 166.

Dr. SCHREINER. Yes, sir. Again, the same facts are there.

The same history obtains. You have been helpful to get kidney added to the name of this program and we hope it will be done in the not too distant future and the fact is the Arthritis and Metabolic Institute has also the impetus of the new kidney program in their own international funding and if they are to get with the development of a new field they have to go to it.

Senator MAGNUSON. We pointed out what little we had last year but it was ignored. We specified the kidney. I am like the Senator from New Hampshire, I think we have to make some kind of decision on these machines. I hear about it all the time, too, all of us on this committee here, because in every community there is somebody that finds they cannot afford to have the machine for one reason or another, or he is too far away.

Dr. SCHREINER. This week, for example, we are returning a brilliant NIH scientist, one of the first biochemists, returning him back to work in the laboratory on his machine.

Senator MAGNUSON. All right, we thank you very much, and your statement will be included in the record in full.

Dr. SCHREINER. Thank you, sir.

(The statement follows:)

Thank you Mr. Chairman for allowing me to be here today to speak for the National Kidney Foundation concerning funding for the Regional Medical Programs and the National Institute for Arthritis and Metabolic Diseases. We who work in the kidney and kidney related disease areas are most grateful for your continued support of adequate funding for this serious national problem. In particular, I wish to commend this Committee and in particular Senator Robert Byrd of West Virginia who offered an amendment to the second supplemental which provided 10 million additional dollars for Heart, Cancer, Stroke and Kidney Diseases. This action was a very important vote of confidence for the Regional Medical Programs which at that time was suffering, because \$34.5 million dollars of FY 71 appropriated monies were placed in reserve by the Executive. Unfortunately, none of the \$34.5 or the \$10 million supplemental have been released as of this time.

Mr. Chairman, the confidence of this Subcommittee in the Regional Medical Programs over the years has not been misplaced. Naturally one can find many criticisms of the Regional Medical Programs, however on the whole, during the short history of the Program one can see many very important positive developments have taken place.

It has helped many medical schools, doctors, nurses, hospital administrators and consumers realize that they need to do things better as a group than they had been doing individually. The Regional Medical Programs are the only place where all the facets -- the academic community, the service community, the agencies and so forth -- have actually worked together. I think that the opportunities are really greater there than in any other broad comprehensive program that we have in the health field. I do not know of any other mechanism in recent American medical history where 10,000 community leaders have agreed to perform volunteer work. Dr. Morgulies, Director of the Regional Medical Programs said in the House hearings, "they have formed a functioning consortium which has no parallel anywhere in the world and which comes into bloom, I think, at a time when it can be responsive to just the things which need to be done".

I am convinced that the Regional Medical Programs will play a dominant role in placing, training and manpower utilization in the context of community needs. These training projects now include the training of nurses and other health personnel including physicians in new skills and on updating existing expertise. For example, over 30,000 physicians are involved in RMP training programs.

I think it can help to expand the health service planning and delivery systems in a much more meaningful

way than some of the other programs that are being pushed. I believe we should develop many more multi-regional programs that are very natural in the kidney areas, such as the tissue typing for transplantation and organ procurement systems. You may know we operate here in our Washington schools in conjunction with a 12 university network throughout the Middle Atlantic area. Since January we have done ^{Six} ~~done~~ transplants at Georgetown. Dr. Hoofnagle does the surgery. We have transplanted kidneys from Atlanta, brought them by Delta Airlines, from Charlottesville, from Baltimore, from Richmond, from Beauman Gray, and Chapel Hill. Mr. Chairman a recent survey of kidney transplants by the Kidney Disease Control Program indicated a number of rather impressive advances in the therapy.

The 1 year survival of kidney transplants from cadaver donors has improved from 32% in 1966 to 52% in 1969. Naturally the patient survival rate is much higher because in most cases of rejection the patient can go back on the artificial kidney machine. The use of cadaver kidneys has been steadily increasing each year because of improved tissue typing, organ procurement programs, and preservation techniques.

By the end of 1970 over 6,000 kidney transplants have been performed in this country.

In nearly all kidney transplants the costs are being reduced at a dramatic rate. So much so that the leading transplant surgeons now indicate the kidney transplants need not be any more costly than any other major surgical procedure. What lower costs, improved efficacy of tissue typing, preservation and procurement does is relieve the tremendous problem of the 8,000 to 10,000 new terminal kidney disease victims each year who are medically considered good candidates for hemodialysis.

Unfortunately, the impounding of the 34.5 million dollars plus the 10 million in the second supplemental has for all practical purposes halted new program obligations on the part of the Regional Medical Programs. These \$44.5 million, in fact, represented those funds that could have been used for new obligations because the remaining monies appropriated by the Congress for FY 71 were needed to maintain previously funded projects. I can assure you as a member of the Nation Council of RMP that there are many very worthwhile Heart, Cancer, Stroke and Kidney disease proposals which have been approved but remain unfunded.

I strongly recommend that this Subcommittee accept the proposed level of funding of \$102,456 for the Regional Medical Programs as suggested by the Coalition for Health Funding. This is quite in contrast to the recommended level of funding recommended by the Executive.

I also would like to say a word about the National Institute for Arthritis and Metabolic Diseases.

Mr. Chairman, we are most gratified to you for your continuing efforts to rename this Institute to include kidney disease. This is the Institute which is charged with research on artificial kidneys and also on uremia and some of the items that are close to the pathologist and the kidney doctor.

The President's recommendation is \$134.4 million, which is \$5 million less than the current level of funding. Here again we have an expanding area which is being cut back. The National Kidney Foundation would like to go on record as agreeing with the Coalition for Health Funding that the Institute funds should not be cut but should be increased to \$166 million in fiscal 1972.

Mr. Chairman thank you.

STATEMENT OF DR. JAMES HENDERSON, DEAN OF THE COLLEGE OF
VETERINARY MEDICINE IN WASHINGTON STATE UNIVERSITY

VETERINARY MEDICAL MANPOWER REQUIREMENTS

Senator MAGNUSON. Next is Dr. Henderson and please indicate who is accompanying you.

Dr. HENDERSON. Thank you, Senator.

I am James Henderson, dean of the College of Veterinary Medicine in Washington State University and Dr. Luoto from Colorado State, Dr. Besch from Louisiana, Dr. Kitchell from Iowa, and Dr. Thorpe from Minnesota and we are very pleased for this opportunity to present our testimony.

I have a prepared statement.

Senator MAGNUSON. It is a short one and I think you ought to read it so we can get a good idea of your program. You can start with the word "present."

Dr. HENDERSON. Actually, there is another addition to it I would like to make for the record.

Senator MAGNUSON. All right, we will put anything you wish in the record and your colleagues' statements can go into the record, too.

Dr. HENDERSON. We wish to speak, specifically, to only a few of the most significant programs, programs which, if appropriately funded, could be of major value in meeting the veterinary medical manpower requirements of the future.

PRESENT SITUATION

There are currently approximately 26,400 veterinarians who are professionally active in the United States. Somewhat over 60 percent of all veterinarians, about 16,000, are engaged in the private practice of their profession, serving the needs of their communities on the varied problems of several species of animal—food producing livestock and poultry, recreational animals, such as horses, companion animals, and laboratory animals.

Approximately one-third of the veterinarians are in public programs such as teaching, research, disease prevention and control, or meat inspection activities under the auspices of local, State, or Federal governments.

FUTURE REQUIREMENTS

There are many indications that we currently have a significant shortage of veterinary medical manpower. Each new graduate has a wide range of opportunities. The most useful indicator of our deficiency is a veterinarian-population ratio developed several years ago and first published in a report of the Committee on Government Operations, U.S. Senate, entitled "Veterinary Medical Science and Human Health."

This extensive review of veterinary medicine, as it was in 1960, expressed a judgment that North America should have 17.5 veterinarians per 100,000 people to adequately meet the needs of the people. This would indicate that we now need 35,700 veterinarians.

Currently, there are 13 per 100,000 which is about 9,300 short of the need. Projecting this to the anticipated population of 1980, we will need over 41,000 veterinarians.

Unless there are dramatic increases in enrollment of students, we cannot expect to produce sufficient new veterinarians by 1980 to increase the number beyond about 31,000, thus, we anticipate a shortage of about 10,000 in 1980.

This is nearly a 25-percent deficit of personnel in this profession.

EDUCATIONAL RESOURCES

There are 18 colleges of veterinary medicine in the United States, 16 of which receive the major proportion of their support for teaching from State sources.

In 1970-71 academic year, these colleges enrolled 5,006 professional and 1,175 graduate students. About 1,240 veterinarians will be graduated in 1971.

Two additional colleges are in the process of being developed but have admitted no students, as yet. These are both in State-supported universities.

With only 18 colleges in the Nation, veterinary medical education clearly becomes a national problem. The colleges are truly regional national resources. I think I can illustrate it best by our own situation.

If you drew a line from Minneapolis to Fort Collins, Colo., and over to Davis, you would cut off in the Northwest a very large chunk of territory and we are the only veterinary college within that territory.

Certainly, the taxpayers of the 17 States in which these 18 colleges are located can't be expected to support all the costs of veterinary medical education for the remaining 33 States, yet that is essentially what is happening today, and it is not working in the best interests of the Nation.

Veterinary medical education costs are high. Facilities must be highly competent and skilled in comparative medicine. Equipment and physical plant requirements with the necessary teaching aids in the basic sciences, and clinical facilities for numerous species of animals are especially costly. Student year costs in veterinary medicine are second only to those in human medicine.

Senator MAGNUSON. What is the average course for a degree, 4 years? What is it in Washington State, 4 or 5?

Dr. HENDERSON. It is 4 years in the professional school, but there are preveterinary programs based on an average 3 years.

Senator MAGNUSON. So it is long term?

Dr. HENDERSON. Yes. The average veterinary student graduating has been in college between 7 and 8 years.

Veterinary medicine is a desired professional field, as is indicated by the number of young people expressing interest, preparing in pre-professional programs, and applying for admissions to the 18 colleges.

This year in Washington State we had 400, I think, qualified applicants and we are limited to 60 students.

In recent years there have been more than four qualified applicants for every one admitted. Many others who are interested, but learn of the limited enrollment possibilities, turn to other fields, thus never reaching the point of applying for admission.

There is no lack of interest, and no lack of good students desiring to enter the profession. The great problem is in the number of educational institutions and their limited enrollment potential.

Meeting veterinary medical manpower requirements will require the expansion of enrollments in the existing colleges and the development of several new colleges of veterinary medicine. We believe that recognition of the regional and national nature of veterinary medical colleges and provision for adequate, continuing financial support from Federal sources is essential.

FEDERAL ASSISTANCE

The health professions educational assistance program has provided limited funds for expansion of enrollment through institutional grants which have been available to colleges of veterinary medicine for 2 years—the last 2 years.

The increased enrollment attributed to such support is less than 80 students each year. Such a program, if effective in providing basic support, must have some stability. It can't be effective when it is on one year and threatened to be turned off the next, which has been our experience with it during this 2-year period.

Certainly, a college can't be expected to take an increased number of students in class on the basis of 1 year of support, when these students will be enrolled for 4 years. A renewed commitment to a system of institutional support on a continuing basis is one essential factor to graduating more veterinarians.

To provide for full funding of the program which is proposed by S. 934, would require the appropriation for 1972 to include \$12,600,000 for capitation grants to colleges of veterinary medicine based upon an anticipated total enrollment of 5,200 in the professional programs, and assuming that 25 percent of the enrollment would be in schools with expanding enrollments meeting the requirements proposed in the bill.

Veterinary medical colleges have been aided through construction grants under the HPEA programs. Only four grants, totaling \$6,661,000 were made through 1969 to colleges of veterinary medicine.

In 1971 two grants have been awarded for \$9,172,822. These grants have permitted replacing antiquated buildings, but none have been made for the development of new colleges, and little expansion in enrollments has resulted.

Until the recent announcements of the 1971 grants, a period of over 2 years had gone by with no grants for veterinary medical educational facilities. The current backlog of approved projects is in excess of \$55 million.

Most of the existing colleges cannot expand their enrollments without construction of new or additional facilities, and the two developing colleges are dependent upon Federal funds for construction to admit their first classes.

The appropriations for 1972 should include, at least, \$30 million for construction grants for schools of veterinary medicine, pharmacy, optometry, and podiatry.

These schools enroll about 32 percent of the students in the health professions. Twenty million dollars of this will be required for

grants for the construction of one new college of veterinary medicine and to permit two smaller construction projects in veterinary medical colleges to be funded.

State funds, which have been made available for matching of Federal funds, may have to be used for other purposes unless projects can be funded soon.

Senator COTTON. Would you stop there one moment.

Could you supply for the record at that point what States have made available these matching funds?

Dr. HENDERSON. Louisiana, Iowa, and Colorado?

Senator COTTON. Those three?

Dr. HENDERSON. Yes. Louisiana is one of the new schools. I would emphasize that State funds are available for this matching of this \$20 million that we are asking for.

Senator MAGNUSON. In other schools, too? Would State funds be available for matching, say, in Washington State?

Dr. HENDERSON. We are not part of this \$20 million.

Senator COTTON. How many States have actually provided funds for matching purposes that can't be matched, just three?

Dr. HENDERSON. Louisiana, Iowa, and Colorado, I think that is the three.

Dr. THORPE. We recently were appropriated \$5 million at Minnesota or are in the process of making application. This would be coming along, too, not immediately.

Dr. HENDERSON. We also will be applying in Washington, but not in this grant here.

Senator MAGNUSON. But if you did apply, you would have matching funds?

Dr. HENDERSON. Yes.

Senator MAGNUSON. What we are trying to get at here is this: What we do in this field, there is available matching funds?

Dr. HENDERSON. There is available in veterinary medicine matching funds.

Senator MAGNUSON. Well, they might not be there now, but your application would point out that matching funds would be sought in these cases?

Dr. HENDERSON. But, at the present time we have matching funds committed to match this \$20 million that we are asking for here. That is mainly in Louisiana, Colorado, and Iowa.

Senator MAGNUSON. What is the percentage of matching funds?

Dr. HENDERSON. It varies a little, but it is supposed to be for new schools in 66 Federal, and it is 50-50 under other conditions.

Senator MAGNUSON. Yes.

Dr. HENDERSON. During this year and last year, special project grants totaling approximately \$1,500,000 have been vital in keeping one veterinary medical college in operation and have helped in an emergency in another one.

To provide for the programs proposed under "Special project grants and manpower initiative awards and part E," "Relief for health professions schools which are in financial distress," in S. 934, the appropriations for 1972 should include \$3 million for colleges of veterinary medicine.

Senator MAGNUSON. This is in special projects?

Dr. HENDERSON. Yes.

In addition to providing essential assistance to colleges which are in serious financial straits, these grants will provide the support necessary to evaluate the innovations in educational methodology, to develop programs of interdisciplinary training, and to develop new programs, where needed, to increase the quality of the curriculum.

We believe it is extremely important to the development of new colleges and the expansion of existing ones, that provisions be made for project grants for training, traineeships, and fellowships for the advanced training of individuals to enable them to teach or improve their teaching skills.

This should become a part of the future programs funding this program in veterinary medical colleges in 1972 would require about \$1,200,000. H.R. 8629 recently passed by the House, contains this provision.

Senator MAGNUSON. Right there the House bill is an authorization; isn't it?

Dr. HENDERSON. Yes.

Senator MAGNUSON. And they have a provision for the training?

Dr. HENDERSON. Yes.

Senator MAGNUSON. That is in their authorization bill?

Dr. HENDERSON. Yes.

Senator MAGNUSON. That is because, you see, the House has not passed on the appropriation bill for 1972.

Dr. HENDERSON. Yes.

Senator MAGNUSON. What I am getting at, they point out, take this item and put it separately and state there should be an amount for this item.

Dr. HENDERSON. Yes.

Funds for student loans and scholarships have been a vital factor in providing the financial resources to permit a number of students to remain in college, to complete their professional education.

Continuation of the loan and scholarship programs is important. We recommend that the funding level be in accordance with the provisions of S. 934.

I would only add we certainly have appreciated the loan program we have had in the past and we are concerned about the attempt to limit this to students whose families are receiving less than \$10,000 a year.

I mean, this is simply not a realistic basis from the standpoint of student loans in the health professions and it means that the middle-income group are placed under very great stress and I think that this would be a mistake.

Senator MAGNUSON. We had, for the record, a pretty lengthy discussion of this matter in the education bill, in the loan parts of it, which the President signed on last weekend and, as pointed out by several Senators, it is pretty hard to set this limit, although we would want to emphasize the poorer families and have it so they would not be denied the right.

Now you take a family that, say, had \$15,000 a year and two or three kids going to college, they are the ones that cannot afford it.

Dr. HENDERSON. That is right, Mr. Chairman.

Senator MAGNUSON. And we put language in the report in the Office of Education bill pointing this out, that there ought to be a change of the guidelines on this matter, without losing the emphasis of supplying the wherewithal to poorer families, the children of the poorer families.

We ought to have both, that is what we mean.

Dr. HENDERSON. Certainly in our area, jobs are very hard to come by, that is for students this summer, and without a loan program we would be in great difficulty and I think it applies certainly to families with more than \$10,000 a year income.

Senator MAGNUSON. Now, when some of your students applied for a loan in the university where you are located, do they apply separately or do they apply to the aid section in the institution or do they go down separately and get a loan?

Dr. THORPE. They apply in Minnesota to the bureau of loans and assistance, which applies to all loans of universities.

Senator MAGNUSON. What we call an institutional recommendation?

Dr. THORPE. Yes.

Senator MAGNUSON. But they can apply separately?

Dr. THORPE. Yes, if they wish; but most all of them go through this, and this bureau, as I say, in the case of Minnesota, handles the loans.

Senator MAGNUSON. What I am getting at is the veterinary institution is in the same category with its students as in other schools applying for a loan?

Dr. THORPE. Yes, except it comes under the health professional assistance clause.

Senator MAGNUSON. Which is under a little different guideline.

Senator COTTON. In other words, it has been to meet dental and so on?

Dr. THORPE. Yes, but it is handled by this bureau in the university.

Senator MAGNUSON. Is that correct in most cases?

Dr. LUOTO. We are eligible also for the guaranteed loan program which is, and this is as far as the students are concerned because they can't find anyone to grant them these guaranteed loans, so it is of no avail to our people so they depend on the health professional loans. As of last year, the schools getting a health professional loan could no longer apply for an NDEA loan and this excluded us, you see, so there was not enough money last year to support all of our students.

We gave them part of these loans, only two out of three, but they were disqualified from NDEA loans because of inadequate loan funds under the health professions.

Senator MAGNUSON. Where do we have the loan funds in here?

Senator COTTON. Is it in banks?

Dr. LUOTO. They won't make the loans at all.

Senator MAGNUSON. We want to get this straight. Under health manpower we have medical, dental, and related health professions, which would be you people, institutional support is \$256 million and student assistance is broken down into direct loans and scholarships and it is \$18 million for the direct loans as against 25 for last year and it is \$28 million for scholarships, which is up, as compared to 15

last year. I don't know what they will do to you, but this is the budget recommendation.

We, generally speaking, in both this bill and the educational bill, have recommended increasing the amount of money for direct loans, whether it be under health manpower on the regular college program this year.

The Senator from New Hampshire and I did not think it was quite enough because they had cut out fellowships altogether and scholarships in the health profession.

Senator COTTON. May I ask this question right there.

You referred in your statement—I think there is reference to S. 934—to the requirements in that bill that have to do with length of the courses, the requirements of preliminary education?

Dr. HENDERSON. Yes.

Senator COTTON. I want to ask you about medical schools. In my own medical school in New Hampshire, we are expanding from a 2- to 4-year course. Previously the doctors had to have 4 years in college, 3 or 4 years, usually 4 years, in medical school and 3 more years in internship and residency.

Now they are chopping off a year at each end. They are giving them credit so that the first year at medical school refers to the 4th year of college and they have shortened the requirements on the internship. In other words they have shortened the training period by 2 years.

Now, is there any reason why the veterinary schools could not require only 2 years of college instead of what they do require now?

Dr. HENDERSON. Two years less than they require now?

Senator COTTON. What do they require now?

Dr. HENDERSON. Well, we require a preveterinary program and certainly in Washington State we don't care how long they take to do it, but it would take at least 2 years to do the premedical program.

Senator COTTON. But they can do it in 2 years?

Dr. HENDERSON. Yes, they can do it in 2 years.

Senator COTTON. In other words, you don't require more than what could be done in 2 years in college as preliminary training before they qualify in your school?

Dr. HENDERSON. That is right.

Senator COTTON. Is that true of the other schools?

Dr. HENDERSON. It is true of most of them. A minimum of two preveterinary and 4 years in veterinary school.

Senator COTTON. By "preveterinary," you mean general education?

Dr. HENDERSON. But there are specific things they ask them to take in preveterinary programs, physics, chemistry, some social sciences, it is a rather prescribed preveterinary curriculum for 2 years so they get the whole DVM education including preveterinary and professional college in 6 years.

There are many of them that take 7 years or 8 years because some of them come into preveterinary who have not been able to meet the basic requirements of the preveterinary curriculum and that is why you get the 7 and 8 year ones.

Some have a BS degree in animal science and decide they want to take veterinary medicine, so it makes an 8 year student but they can do it in six years.

Senator COTTON. Thank you.

Senator MAGNUSON. I had not heard that conversation because I had left, but I think I know what it is really about and I just want to point out to you people that we have been urging, and we have had some cooperation with the medical schools, to do something about this longtime, maybe by the use of new techniques or even audio visual programming, where you can take care of some people in training and cut the length of training down. It is a longtime for a fellow to stay in debt.

By the time he gets out he probably has a family, so he has to look around quickly to get some money to pay all his debts.

I am glad to hear you are considering some means to shorten that period of training.

Dr. BESCH. We proposed a study on that using special project funds, but we never had any given to veterinary schools except those in dire financial need.

Senator COTTON. Is there anything in S. 934 that will require more than the total 6 years in which it can be done?

Dr. HENDERSON. No.

Dr. BESCH. One other point. We have a great deal of flux, Senator, in curriculum structures and revision in veterinary medicine. This is to existing programs. We never had the privilege in veterinary medicine of structuring a new program in the last 4 years.

In other medicine, they have and have gone to a greater extent than in veterinary medicine.

Senator MAGNUSON. There is a new authorization for health manpower and I understand you people are included; is that right?

Dr. HENDERSON. Yes.

Senator COTTON. Are there some new requirements about the courses and length?

Dr. HENDERSON. It does not increase them, no.

Senator MAGNUSON. I have no further questions, except, again for the record, under the health professions educational improvement grants, the veterinary medicine budget recommendation is zero, but it is going to be some help, I think, to this committee if there is strong language and I hope there is in this report for including veterinary medicine professions.

Dr. HENDERSON. Thank you very much.

Senator MAGNUSON. Specifically, you have broken down this training program to \$1.2 million, which is in the House bill, and then the construction amount.

But the \$30 million you suggest is for all of these?

Dr. HENDERSON. That is right.

Senator MAGNUSON. It is for all of these professionals that were left out?

Dr. HENDERSON. Yes; we are in the group.

Senator MAGNUSON. You would be in that group.

Dr. HENDERSON. Yes.

Senator MAGNUSON. All right; we thank you very much, and we will place in the record the last two pages of your statement and the addendum to the statement.

(The remainder of the statement and addendum follow:)

Before closing I wish to speak in favor of one other worthy means of continued support for the training programs within veterinary medical colleges -- that of the General Research Support Grant program (GRSG). Concern is widespread over the continued decreases in that funding, dropping from \$60.7 million in 1969 to the \$49.2 million proposed by the Administration for 1972 ! Although authorized for funding for up to 15% of the federal research budget the level now proposed is only 7.9%.

Rather than decreasing the appropriations for this vital GRSG program there should instead be increased support; GRSG is essential to the future operation and effective functioning of our schools of veterinary medicine. We therefore recommend that this appropriation be restored at least to last year's level of \$54.2 million.

Because of the unique nature and provisions of the program the importance of such awards far transcends the actual dollar values involved.

The program cultivates scientific excellence through providing stable support and the strengthening of institutional programs; it enables early recognition and support of talents, and of novel and emerging opportunities in research. Perhaps most importantly, the GRSG program allows each institution to balance its own programs and enhance its role in determining the direction of the institution's interests and development - irrespective of current fashions in support of project grants.

The effectiveness of the GRSG program in fulfilling its role in the support of research and research training (at a cost, incidentally, of only 6% of the 1966-67 federal health research budget) is fully summarized

in the Roth-Boynton Report - The General Research Support Grant: It's Objectives and How They Are Being Met (GPO 0-398-935).

The virtually unanimous views held on the worth of this program within both of the national organizations for whom we speak today are in complete accord with the findings of the Roth-Boynton Committee. This recognition of the effectiveness and value of the GRSG program exists, I am sure, within all health-related schools within the program. Revitalization of this program through restoration of adequate appropriations should be started within the fiscal 1972 legislation.

Thank you, Mr. Chairman and members of the Sub-committee, for giving me an opportunity to appear before you. If there are questions, my colleagues and I will be glad to attempt to answer them.

ADDENDUM

During 1970, the Southern Regional Education Board named a Special Committee to study the need for training for veterinary medicine in the South, and the capability to meet that need. The Committee Report was accepted by the Board, last May, and we wish to present the summary of this Report, and have it made a part of the record of these proceedings.

May 17, 1971

SPECIAL SREB COMMITTEE
on
VETERINARY MEDICAL EDUCATION

Summary of Recommendations

1. Recommendations to increase the number of SREB veterinary medical training spaces in the near future.

- . SREB veterinary medical schools consider adopting a year-round calendar.
- . Expand the regional veterinary medical school of the University of Georgia from 69 to 120 students as quickly as possible.
- . Open the developing regional school of veterinary medicine at Louisiana State University. The Committee recommends that federal funds be provided to LSU for the approved but unfunded construction grant.
- . Increase the contract-for-services fee for reserving an SREB veterinary space from \$1800 a year to \$3000 a year effective in the fall of 1972.

2. Other recommendations.

- . Additional federal support for construction and expansion of veterinary medical schools be made

- available, as the Committee sees no prospect of meeting substantial veterinary medical education needs except through additional federal support.
- . Any new Southern veterinary medical school be committed to regional education from its conception.
 - . In awarding construction grants and expansion monies to veterinary medical schools, federal authorities to give special consideration and priority to the regional commitment of the school.
 - . A second new regional veterinary medical school to be opened in the SREB region in the mid or late 1970s.
 - . Efforts to continue in Florida for development of the school being considered, as well as study by North Carolina on the question of a school.
 - . Expansion of Southern veterinary medical schools in addition to the University of Georgia.
 - . Veterinary and pre-veterinary curricula to be studied to reduce years involved, to better mesh training, and to afford wider opportunities for young people to secure pre-veterinary training.
 - . State and federal funding agencies work to increase and up-grade Southern veterinary medical faculty and to afford veterinary medical schools more veterinary technicians and non-academic personnel.

- . State higher education planning and coordinating agencies and veterinary medical colleges to consider means for expanded training of veterinary technicians.
- . SREB states and veterinary medical schools continue with renewed determination their cooperative participation in the regional training program.
- . This report and its recommendations be brought promptly to the attention of appropriate state and federal authorities and professional associations.

STATEMENT OF DR. ALVIN F. MORELAND, D.V.M., UNIVERSITY OF FLORIDA

Senator MAGNUSON. Dr. Alvin Moreland of the University of Florida could not be here today so we will include in the record a statement, submitted by him, concerning animal resources in biomedical research and training.

(The statement follows:)

I am Alvin F. Moreland, Doctor of Veterinary Medicine, Head of the Division of Comparative Medicine and Director of the J. Hillis Miller Health Center Animal Department at the University of Florida. I am also a Diplomat of the specialty group within the American Veterinary Medical Association known as The American College of Laboratory Animal Medicine, and a member of the American Association for Laboratory Animal Science (AALAS). Prior to this year I have served several years as a member of the AALAS executive board and currently am Chairman of its Committee on Public Policy.

AALAS is an organization of nearly 3000 individual scientists, technicians and institutions concerned with the development and use of animals in all phases of biomedical research and training. The importance of animals as models for research on human diseases, for use in teaching, drug development and testing and in furthering our knowledge of human disease is increasingly recognized. Accordingly, our members are vitally concerned with the development of animal resources in support of all phases of biomedical investigations including studies on ecology, the environment, congenital defects, nutrition, cancer, heart disease, and other forms of disease or disorders afflicting man.

I deeply appreciate the privilege of appearing before you to express my concern about the critical needs for research animal resources of our nation's research institutions. You gentlemen, who have played such a vital role in past years in providing support for the biomedical research effort are certainly aware of the beneficial accomplishments which have improved the health of our people so I won't belabor the point, however, I do want to emphasize that these accomplishments could not have been made without the extensive use of experimental animal subjects.

Along with the increased utilization of animals in research, considerable knowledge has accrued about animal diseases and management. Much of this knowledge has been and is now being applied toward the improvement of food animal and companion animal health, public health, and improvement of the quality of animals used in research. The number of Doctors of Veterinary Medicine engaged in practice of the Laboratory Animal Medicine specialty has grown from less than a dozen in 1950 to more than 500 today.

Animals used in biomedical research numbered more than 11 million in 1968 according to a National Academy of Sciences survey. Obviously, this number of animals living in close proximity in institutional environments create major problems of animal disease, management and prevention and the subsequent maintenance of high quality standards for their use in research. It has only been possible to accomplish the provision and maintenance of high quality through the continued improvement of the facilities and personnel involved in research animal care and management. The Division of Research Resources, most recently, and formerly, the Division of Research Facilities and Resources have generously contributed to this continued improvement. However, because of the very nature of their use, animal facilities deteriorate at a significantly more rapid rate than most other types of facilities and equipment. The need for high levels of sanitation dictate daily use of large volumes of water, detergents, caustic disinfectants and other cleaners which quickly erode even the best construction materials. Animal excreta, particularly acid urines, result in rapid corrosion and oxidation of cage equipment and the associated ammonia vapors from urine causes rapid deterioration of ductwork and mechanical air handling equipment. Institutions are doing their utmost to provide for the needed improvements. But, because of

the extreme pressures placed on state and private organizations for monies to carry on a myriad of vital programs they appear to be losing the ability to keep up the improvement of animal resource facilities and equipment.

I'm sure you gentlemen are aware of the passage in 1966 of Public Law 89-544 (The Laboratory Animal Welfare Act) and in 1970 of Public Law 91-579 (The Animal Welfare Act of 1970). Both of these laws are good and worthwhile, however, in themselves they place a severe financial burden on the already overstrained financial resources of our biomedical research institutions.

I have for several years served as a member of the Council for the American Association for Accreditation of Laboratory Animal Care, an organization established by Biomedical scientific associations in an effort to assist their institutional members to improve their animal facilities and resources through a program of voluntary inspections and an accreditation schema. The program has been successful having assisted 166 institutions to achieve a fully accredited rating, 23 a provisionally accredited rating and 33 remain to achieve accredited status from a total of 222 institutions who have participated in the program. Interestingly, 29 institutions which were initially provisionally accredited or from which accreditation was withheld have improved their facilities so that they are now included among those fully accredited institutions. The criteria for accreditation are the minimal standards promulgated by the Public Health Service in its Publication 1024 "Guide for Laboratory Animal Facilities and Care". A careful estimate reveals that only about 10% of the Nation's biomedical research institutions have participated in the program although these institutions use approximately 1/3 of the animals used in research.

Undoubtedly there are many reasons for the lack of participation of the remaining 90%, however, there can be no doubt that many have not applied because it is believed that they are unable to "measure up" to these minimal standards.

In 1968, the National Academy of Sciences through its Institute for Laboratory Animal Resources (NAS-ILAR) conducted a comprehensive survey of laboratory animal facilities. This survey revealed that of the approximately 7.6 million net square feet of animal facility space in use at that time, over two million net square feet needed remodeling or replacement. In addition to physical plant facilities, animal care equipment such as cages, cage washing machines, steam cleaners, etc. are very expensive and subject to rapid deterioration. Many institutions are currently using equipment of sub-standard quality and in immediate need of replacement. The NAS-ILAR survey revealed that over 21% of the institutions had such equipment that needed renovation or replacement and that 17% of the institutions needed such equipment but did not have it available. That was 3 years ago. The need would undoubtedly be greater today since the last three years has been a period of severe local and Federal budgetary constraints with little or no Federal support for facilities improvement. As Public Law 91-579 is effected it is expected that additional equipment needs will be generated by its requirements that larger cages be provided for some species in order to better provide for animal comfort.

The proposed budget for the National Institutes of Health does not include funds to assist in this critically needed animal resources facilities and equipment improvement. Recommended funds to support the current program of the Animal Resources Branch of the Division of Research Resources are all

vital and necessary to continue other current programs of crucial importance to our Biomedical research effort. What is needed therefore are additional funds to assist in meeting the needs for improvement of animal facilities and equipment.

The amount of such monies is difficult for me, as a layman, to calculate. However, the NAS-ILAR data reveal a recognized need for \$28.6 million for remodeling and renovating facilities and \$13.06 million for equipment and cage replacement. This reveals a total need for \$41.66 million. This figure does not include figures for expansion or construction of new facilities. It seems to me that a 50% to 66-2/3% sharing of the costs to make the needed improvements (not expansion) by the Federal government would be in order. This would produce a need for \$20.83 million at the 50% level or \$27.74 million at the 66-2/3% level. The latter level would be more realistic when one considers the extreme shortage of local funds. Assuming the corrections could be accomplished over a four year period an allocation of \$12 million in Fiscal 1972-73 and \$5 million in each of the three following years would appear to be a reasonable approach.

Again, I thank you for the opportunity to appear and express my deep concern for this critical need for minimally adequate funding of the Nation's research animal resources. Your careful consideration of this vital need will allow our biomedical research programs to continue to expand the ability to deal with the health problems of our Nation's citizens.

BIOGRAPHICAL SKETCH OF DR. A. F. MORELAND

Name: Alvin F. Moreland

Position: Associate Professor Comparative Medicine, Head Division of Comparative Medicine and Director J. Hillis Miller Health Center Animal Department, University of Florida

Birthplace & Date: Morven, Georgia, September 5, 1931

Education: Georgia Teachers College 1948-1951, Bachelor of Science
 Emory University 1951 No degree
 University of Georgia 1951-1952, Masters of Science
 1956-1960, Doctor of Veterinary Medicine

Experience: Present, Head Division of Comparative Medicine and Director, J. Hillis Miller Health Center Animal Department

1963 - 65, Director, J. H. Miller Health Center Animal Department

1962 - 63, Ass't Prof. of Pathology & Director of the Vivarium, University of Virginia, Charlottesville, Virginia

1960 - 62, Fellow in Laboratory Animal Medicine, Bowman Gray School of Medicine of Wake Forest University, Winston-Salem, N. C.

1956 - 60, Veterinary Student, University of Georgia, School of Veterinary Medicine & Research Technical Assistant, Department of Pathology

1953 - 56, Lieutenant (jg) United States Navy

1951 - 52, Graduate Assistant, Bureau of Educational Services Field Studies, University of Georgia

Association Memberships: American Veterinary Medical Association
 Florida Veterinary Medical Association
 Alachua County Veterinary Medical Association
 New York Academy of Sciences
 American Association for Advancement of Science
 American Association for Laboratory Animal Science

Publications: 22 papers in 13 scientific journals
 Chapters in 3 scientific books

STATEMENT OF DR. JANET B. HARDY, JOHNS HOPKINS

NATIONAL INSTITUTE OF NEUROLOGICAL DISEASES AND STROKE :
COLLABORCLINE PERINATAL STUDY

Senator MAGNUSON. Our next witness is Dr. Janet Hardy.

Dr. Hardy is from Johns Hopkins and has a prepared statement which will be included in the record in full.

(The statement follows:)

May I thank you for the privilege of appearing before you on behalf of the Project Directors of The Collaborative Perinatal Study of the National Institute of Neurological Diseases and Stroke.

First, let me qualify myself as an expert witness. I have been a member of the faculty of The Johns Hopkins School of Medicine for some 25 years during which I have served on the full-time research and teaching staff, except for five years spent with the Baltimore City Health Department. My duties as Assistant Commissioner for Preventive Medicine were concerned among other things with establishing programs for (1) handicapped children, (2) prenatal care for the poor and (3) the health of school children. I left this position to return to Johns Hopkins, on a full-time basis, to organize the Johns Hopkins Collaborative Study on Cerebral Palsy, as it was then called. We admitted our first patients, on a pretest basis, in 1958.

In addition to directing the Johns Hopkins Study, I have been an active participant, with the staff of the National Institute of Neurological Diseases and Stroke (NINDS) and of the other eleven collaborating institutions, in the development of the design of the Study on a national level. I am, therefore, thoroughly familiar with all aspects of the Study. During the past year I have participated in the analysis of the data collected, and the development of the first major publication, a book entitled The Collaborative Perinatal Study: The Women and Their Pregnancies, which has just received official clearance for publication by Saunders and Company.

The Collaborative Perinatal Study includes some 58,000 pregnancies, and the follow-up of the surviving children through seven and eight years of age. It is an important study because it can help to elucidate the causes of fetal and neonatal death, and that continuum of fetal injury which results in mental retardation (3% of all children), Cerebral Palsy, defects of vision and hearing, minimal cerebral dysfunction and learning disabilities (depending on definition and population studied, 5 to 50% of all children).

Perinatal problems as a cause of death are exceeded in importance only by cancer and heart disease. The risk of dying is higher during the perinatal period (ie. from 20 weeks of gestation through the 28th day of life) than at any time in life until advanced old age (ie. beyond 65 years).

About 4% of all pregnancies end in stillbirth or neonatal death, many more in abortion.

The risks of dying tell only part of the story. Of far greater consequence to the individual, the family and the nation is the risk of surviving with a serious handicap to the central nervous system (see table attached). For example, 3% of children born are mentally retarded - (ie. 3% of 3.5 million or 105,000 children born each year) - others survive with cerebral palsy, epilepsy, serious defects of vision or hearing, and many children are handicapped by the subtle impairments of minimal cerebral dysfunction and learning disabilities including dyslexia.

Estimates of the number of children with subtle learning disabilities range from 5 to 50% of school age children, depending upon geographic location, definition and social background. Educational difficulty, school failure and dropout, and delinquent or criminal behavior is of all too frequent occurrence among such children. Society has failed to eliminate or ameliorate these school problems largely because the antecedent events were unclear and the causes often unknown.

It is estimated that of the 20 million Americans with neurosensory handicaps* that more than 70% have conditions which originated during the perinatal period. If the causes of these handicaps can be pinpointed, preventive measures can be developed. Three examples, come immediately to mind, (1) rubella vaccine to prevent rubella during pregnancy, (2) the possibility that the withholding of certain drugs will prevent the occurrence of congenital malformations which might result from their use, (3) the use of exchange transfusions for children with high neonatal bilirubin levels early enough to prevent minimal brain damage. There are many other leads which require urgent pursuit.

History of The Collaborative Perinatal Project

The NINDS Collaborative Perinatal Study was started by Dr. Pierce Bailey, with the support of Congress. The first patients were enrolled on a pretest basis in 1958 and the study began in earnest in 1959. Ten university medical centers have continued to collaborate

*Carhart Report - (National Advisory Neurological Diseases and Stroke Council, Human Communication and Its Disorders: An Overview, U. S. Department of Health, Education and Welfare, N.I. H. Bethesda, Maryland, 1970).

with the NINDS in the Study of 58,000 pregnant women and their children followed through seven to eight years of age. The massive amount of information collected on the mothers and on the children through the four year age level is now on some five million punch cards and computer tape. Approximately 70% of the children have been examined psychologically and neurologically at seven years of age and about 50% of the available 8 year olds have had their language, hearing and speech evaluation. The collection of information on the school age children is thus approaching completion and the data collection phase of the study will be terminated in FY '74.

The information from the evaluations at seven and eight years is being processed onto punch cards and computer tape as it is received at the Perinatal Research Branch, of the NINDS. Completion of data analysis will require several additional years.

Analysis of the pooled data is actively in progress - after a number of years were spent in the evaluation and review of the information being collected. Two successive ad hoc review committees gave their approval to the continuation of the Study.

Some 500 scientific papers relating to various aspects of perinatal problems have already been published by staff members of the Perinatal Research Branch and by scientists in the local institutions.

The first major comprehensive description of the Study, a book entitled the The Collaborative Perinatal Study: I. The Women and Their Pregnancies, has been cleared for publication and is in the hands of the publishers. The second volume is in preparation and should be completed by the end of the year. This volume, entitled The Collaborative Perinatal Study: II. The First Year of Life describes the infants and their course through the first year.

These volumes are intended to serve as a basic description of the study and the information contained therein. They make important contributions to current knowledge of factors determining pregnancy outcome both in terms of the optimal and the relative risks of unfavorable outcome. Such information is essential with respect to:

1. pregnancy planning for optimal outcome,
2. the identification of causes of pregnancy wastage and handicapping conditions so that preventive measures may be developed,

3. the identification of high risk pregnancies so that appropriate medical care for mother and baby may be devised, and
4. the identification of the high risk factors for the newborn so that damage to the nervous system may be avoided or at least held to a minimum.

Planning for Data Analysis in a number of special areas is proceeding under the direction of some eleven special task forces. For example:

1. The effect of the toxemias of pregnancy.
2. The effect of factors associated with labor and delivery.
3. The role of perinatal infections in adverse pregnancy outcome.
4. Factors which affect the physical growth and development of children.
5. Factors which affect intellectual growth and development, through age 4 years.
6. Genetic Factors, a special substudy in this area is concerned with the unique information available about the 600 pairs of twins born into the Study.

Highlights of Important Observations from the Study - A few examples:

1. A strong relationship appears to exist between the amount of weight gained by the mother during her pregnancy and the survival and birth weight of her infant. It would appear that a weight gain of 25 to 29 lbs. is optimal with respect to the lowest rates of perinatal death, premature delivery (birth weight below 5 1/2 lbs) and later abnormalities. Furthermore, IQ at 4 years of age is related to birth weight with big newborn infants, (excluding the excessively large), on the average having higher IQ levels than the small babies in the lowest 10th percentile at birth. Obstetric practice in the United States, and the American woman's wish to look young and slender have tended to restrict weight gain during pregnancy to 16 lbs. European women on the other hand, on the average, gain 20 -30 lbs. This may account in large part for the fact that the United States ranks 13th in the world with respect to neonatal mortality. Further analyses are required to elucidate the factors which determine maternal weight gain. It is interesting to speculate that the perinatal death rate, and the rate of neurological handicaps might be very substantially reduced by simply encouraging pregnant women to gain 25 to 30 pounds rather than 15 pounds.

Maximum Serum Bilirubin: Many babies become yellow - or jaundiced in the newborn period as the result of higher than normal levels of bilirubin in the blood and tissues. It has long been known that very high levels of serum bilirubin in the newborn period are related to severe neurologic

damage - (Kernicterus and Cerebral Palsy). Exchange transfusions are used to reduce the dangerous high levels (over 20 mg %). It was not until information was systematically collected on a large series of babies in the Collaborative Study that it became apparent that babies with elevated but not high bilirubin levels (15-20 mg %) had significant developmental problems and neurological problems - regardless of their birth weight. It would appear that exchange transfusions might have prevented such problems. Further analyses of the newborn bilirubin level in relation to findings at seven and eight years of age hold promise of yielding important leads for the prevention of minimal cerebral dysfunction. Approximately 5% of newborn infants have bilirubin levels of 15 mg % or above. Refinements in diagnostic techniques and treatment should help to prevent permanent handicaps in these children once the fact that they are at special risk is established.

Rubella Studies

The Johns Hopkins Collaborative Study group has been privileged to work intensively on problems stemming from maternal rubella during pregnancy. In association with Dr. John Sever, NINDS, using our Study patients we have been able to demonstrate conclusively that rubella during the second trimester of pregnancy may also result in fetal death and handicapping defects in surviving children, as is the case with rubella during the first 3 months of pregnancy.

In the Johns Hopkins Study, among 24 women with rubella between the 13th and 30th weeks of gestation - two lost their babies with congenital infection. Among the 22 infants followed to age 4 years, 10 had communication problems (hearing and language deficits), 5 had other manifestations of congenital infection including mental retardation, congenital heart disease, and growth failure. Thus, on prolonged follow-up, only 7 of the 24 women had children without evidence of congenital infection.

The lifetime care of a child with congenital rubella costs approximately \$200,000. It is estimated that 20,000 children survive with severe handicaps as a result of the 1964-65 epidemic - for a staggering cost of 4 billion dollars. Other maternal infections in pregnancy are also known to cause similar damage. Toxoplasmosis and cytomegalovirus (CMV) to name only two. The data in the Collaborative Study could throw light on their roles in perinatal disease.

In my opinion termination of pregnancy, if the parents so desire, is entirely justifiable up to 20 weeks gestation when the mother has rubella during pregnancy.

The use of rubella vaccine for susceptible teenage and non-pregnant women is highly desirable.

Illustrations of Value of the Data

The value of the data in the study can best be illustrated by two brief case reports. The first concerns Dennis who is now 10 years old. Dennis' mother became pregnant when she was only 16. She failed to realize the necessity for prenatal care and did not come to the clinic until fairly late in pregnancy when she had developed severe Toxemia. This caused Dennis to be a 'small for dates' and jaundiced baby with neurological difficulties observed in the nursery. By four months of age he had a definite right hemiparesis - which was still present at one year. His development was slow. He was adopted by an aunt at age two years, by now the hemiparesis had disappeared and the only unusual finding was a rather marked degree of hyperactivity and a tendency to be left handed. At four years his IQ was in the low normal range, at five years he began setting fires in cupboards and set his aunts and a neighbor's house on fire. Good psychiatric treatment was obtained. At seven and eight in spite of a generally normal IQ he was unable to learn to read; he was distractible, destructive and difficult to manage. He was in a good home situation and supportive psychiatric care was given to his aunt. At age 10 he caused a major fire and was committed to an institution for retarded children where his care is costing the community -- sixty years of custodial care at \$3500 per year is over \$200,000. Had one seen this child first at age 10 years, one would be hard put to explain his normal IQ, inability to read and delinquent behavior. The connecting links with early neurological abnormality, resulting from complications of pregnancy which could probably have been prevented would have been observed.

The second concerns a telephone call, a week or two ago, from a young soldier in Texas. He was just about to leave for duty in Vietnam. His wife, 18 weeks pregnant with her first child had just developed rubella. They were both anxious to have a child especially as there is no guarantee that he will return from Vietnam, on the other hand, he did not want to take a substantial risk of leaving his wife with a handicapped child. Without the data from the Collaborative Study I would not have had any answers to his questions - in fact, I would not have any for the numerous telephone calls, which come in from all over the country, requesting information about the risks of congenital rubella.

Reduction in Funding Jeopardizes Study

The Collaborative Perinatal Study is in jeopardy because of a 2.1 million dollar reduction in the funding level (approximately 7.2 million to 5.1 million) recommended in the President's budget for FY '72.

In actual figures this is a 27% reduction over FY '71. In effect, because of inflation, it is a 33% reduction. The funding has been progressively reduced from a maximum of approximately \$9 million which was required during 1966. Further reductions below FY '71 cannot be tolerated without serious harm to:

1. Data Collection - The observations to be made at ages 7 and 8 years will be reduced in both quantity and quality as a result of inadequate support of personnel in the collaborating institutions.
2. Data Analyses - The study is almost complete except for the least expensive and most important part - The pay off. The reduction in funding means that the detail and speed with which the data in hand can be examined and published will be seriously curtailed. Some analyses will be postponed, others simply not funded at all. This can have serious consequences. For example:

After July 30th, 1971, the Prenatal Drug Study being carried out in Boston by Drs. Jick and Slone will not be funded at all, and the important leads linking certain drugs and vaccines given to the mother during early pregnancy with perinatal death and congenital malformation will be discontinued. This could have tragic results. If one considers that simply by not giving certain drugs to pregnant women one can prevent the occurrence of malformations. Let us draw some inferences for a moment - from one suspicious sedative drug identified in the Tufts Study. It is generally accepted that the lifetime care of a seriously malformed individual costs \$150,000 to \$200,000. If one assumes that the proportions of women among the 58,000 in the Collaborative Project who: one, received a suspicious drug during early pregnancy; and, two, had a malformed child are representative of the country as a whole, then by merely not giving this drug to any pregnant woman in the United States for one year, one would have saved sufficient money in terms of un-needed lifetime care to pay the 100 million dollar cost of the Collaborative Study to date. All other findings would be gravy. However, there are no funds to continue these analyses.

A similar study of the effect on the child of drugs and anaesthetic agents used at the time of delivery is ready for processing but no funds are available to underwrite the cost of the analysis.

Similarly there is no money to underwrite the cost of analysis of special studies which have been conducted by some of the local institutions. For the Johns Hopkins Group this means postponing a book

on congenital rubella, and analysis of data pertaining to the growth and development of 'inner city' children.

3. The Development of Special Studies dependent upon the continued follow-up beyond age 7 and 8 years of special groups of children in The Collaborative Project. These children, because of the wealth of information available, constitute a national resource of considerable importance and their follow-up should be continued. For example:

a) Those with congenital heart disease - there are some 450 children in this group. The opportunity to watch the evolution of their disease and its effect on their development is unparalleled.

b) Similarly there are some 300 children with epilepsy. These children can contribute much to information available about the causes of this condition and the effect of its presence on the growth and development of children.

c) The several hundred children with congenital rubella represent a unique resource. Subtle abnormalities of vision, hearing and intellectual functioning are appearing as seemingly mildly or unaffected children grow older. The Johns Hopkins Rubella Study is barely limping along because of lack of funding.

d) The 600 pairs of twins provide a unique resource to geneticists and to those interesting in learning processes. These children should be followed until 15 years of age or more - funding does not permit.

e) The children with normal intelligence but minimal cerebral dysfunction and learning disabilities are a uniquely important group. Here is an opportunity to study the causes and cognitive disabilities of such children so that preventive measures and successful remediation may be developed. Lack of funds has prohibited special studies in this area, proposed by the Collaborative Study Centers in Buffalo and Baltimore.

These are but a few of the opportunities which should be seized now - before it is too late. These studies can no longer be postponed, the children grow older every day.

The expense (and the time required) for the initial investment have been so great that it is unlikely that a similar opportunity will present itself for many years to come.

In Summary

The Collaborative Perinatal Study, which after many years is approaching its end, has a unique potential to provide answers important in:

1. the prevention of pregnancy wastage and the many handicapping conditions of children and adults which originate in pregnancy.
2. the development of optimal medical care for mothers and children.
3. the education of medical students and young physicians.

The information contained could be of importance to obstetricians, pediatricians, neurologists, public health workers, educators and all those concerned with the development of preventive and remedial programs for children.

A \$2.1 million (27%) reduction in funding proposed in the President's Budget for FY '72 places in jeopardy the ability of the Collaborative Perinatal Study to:

- 1) complete data collection,
- 2) to press forward with data analysis as rapidly and thoroughly as possible, and
- 3) to plan for the continued follow-up of special small subgroups of children in order to maximize the benefits of the Study.

I respectfully request your consideration of this matter in order that short sighted penny pinching not prevent this Study from reaching its full potential.

Thank you,,

Janet B Hardy.

Janet B. Hardy, MDCM, FAPHA

Disability from Various Neurologic Entities Which May
Represent in Part a Continuum of Reproductive Wastage*

Disability Category	Total Estimated Number of Disabled Persons in U.S.
Cerebral palsy	555,000
Mental retardation	5,000,000**
Epilepsy	1,500,000
Visual handicap (legally blind)	345,000
Auditory handicap (legally deaf)	760,000
Disorder of Speech	***

*From material prepared by the National Institute of Neurologic Diseases and Blindness from morbidity estimates, received from the relevant voluntary agencies, Feb. 5, 1960.

**Three percent of population; 126,000 mentally retarded born annually.

***Two to five percent of all children.

It is estimated that there are approximately 20 million individuals in the United States with handicaps, or defects, which fall within this general category.

(National Advisory Neurological Diseases and Stroke Council, Human Communication and Its Disorders: An Overview, U.S. Department of Health, Education and Welfare, N.I.H. Bethesda, Maryland, 1970).
Carhart Report

PROBLEMS ENCOUNTERED BY STUDY FAMILIES BETWEEN BIRTH AND AGE 7
(N=335)

Category of Problem	Number of Problems Number of Families										Total	%
	0* N=85	1 N=70	2 N=66	3 N=41	4 N=30	5 N=21	6 N=12	7 N=9	8+ N=1			
1. Serious illness or operation	-	27	32	20	17	12	4	7	1	120	35.8	
2. Financial (food, clothing, rent)	-	7	17	17	11	14	11	5	1	83	24.8	
3. With men in house	-	7	17	20	18	12	10	8	-	92	27.5	
4. With children in house	-	7	11	11	9	5	5	6	1	55	16.4	
5. With relatives or friends	-	2	7	6	7	9	4	5	1	41	12.2	
6. With women in house	-	-	1	3	4	6	4	4	1	23	6.9	
7. With job or work	-	5	9	13	8	9	6	4	1	55	16.4	
8. In neighborhood	-	6	13	6	8	10	6	8	-	57	17.0	
9. With alcohol	-	1	9	12	10	8	8	7	-	55	16.4	
10. With drug usage heroin, marijuana, others	-	-	3	1	7	2	5	2	1	21	6.3	
11. With law or police	-	2	4	9	17	13	8	6	1	60	18.0	
12. Other	-	6	9	5	4	6	1	-	-	31	9.3	

*85 (25%) of the families reported no major problems during the seven year period.

This information is based on an open ended interview designed to indicate a) the nature of the stress, b) the time when it first occurred, c) its duration, and d) its impact on the child and the family. The table indicates only the frequency with which problems were reported and not severity or impact.

Dr. HARDY. Senator Magnuson, on page 9 there is a summary of the statement which has the main points and Dr. Bucy already introduced the subject which I would like to testify concerning and that is the collaborative perinatal study of the National Institute of Neurological Diseases and Stroke and I really wanted to speak specifically to a real problem which this study faces and that is a projected reduction of \$2.1 million in the President's budget for fiscal 1972.

This is a 27-percent reduction in fact but because of the inflation it represents roughly a third of the funding.

Senator MAGNUSON. Before you go on, I think this will be in the record but just so we understand it better, the study was started in 1959?

Dr. HARDY. Yes; in 1959.

Senator MAGNUSON. And there are now 10 university medical centers that are participating in this study.

Dr. HARDY. Right.

Senator MAGNUSON. And it involves up to date 58,000 pregnant women?

Dr. HARDY. Right.

Senator MAGNUSON. Up to date.

Dr. HARDY. That is all actually. The last pregnant woman was enrolled in 1966 and we are following the children until the 7- or 8-year goal and in 2 more years, fiscal 1974, the last children will be finished in their examinations, so this cut in funding comes at a time when the major expense and thrust of the data collection is almost over.

It comes at a time when the pay-off is really just beginning, because it takes approximately 9 years of study of a mother and her child to reach the end point.

Senator MAGNUSON. Was this a total Federal grant study or is there additional participation?

Dr. HARDY. There is considerable participation.

Senator MAGNUSON. In the 10 schools?

Dr. HARDY. Yes; in the 10 schools. At Johns Hopkins, I think that the participation from the schools and from other grants, not necessarily Government grants, but private grants, the participation amounted to roughly 30 percent, I would guess.

Senator MAGNUSON. And you suggest in the summary that to continue this—well, you suggest that the \$2.1 million in the proposed budget, which is the 27-percent reduction, would place the study in jeopardy.

Dr. HARDY. Yes; if the budget for fiscal 1972 is cut by the proposed \$2.1 million, they are in jeopardy.

Senator MAGNUSON. How much do you suggest we put in?

Dr. HARDY. I think if \$2 million were there that would help.

Senator MAGNUSON. This does not mean you are going to get it?

Dr. HARDY. No, Mr. Chairman; I realize that. But I think \$2 million would enable the study to complete the data analysis—that is, \$2 million in fiscal 1972, added to the \$9 million that the President's budget suggests be spent—would help us to complete the data analysis and go forward at this time with the data analysis.

Senator MAGNUSON. I think I confused the record myself here.

Now when you talk about \$2.1 million, that is the reduction?

Dr. HARDY. Yes; that is the reduction.

Senator MAGNUSON. And you suggest that that be put back in?

Dr. HARDY. Yes, sir.

Senator MAGNUSON. That is to make it what it was last year?

Dr. HARDY. Right.

Senator MAGNUSON. Now, you have here on page 4 "highlights of important observations from the study."

What do you do with these observations? How do you distribute them around? Who participates?

Dr. HARDY. A number of things are done with those, so far, there has been about 500 scientific papers published by the staff and the collaborating institutions and the National Institute of Neurological Disease and Stroke.

We have just finished compiling the first volume describing the women in the study and their pregnancy outcome and this went to the publishers in the last week or so.

We are deeply involved in producing a second volume which will describe the children through 1 year of age.

I am actually working on the second volume and there is material here which should have very real impact in terms of pointing up better ways of providing medical care for mothers and babies, better ways of educating young physicians.

For example, I was really shocked to find that during the first year of life, 480 of the 17,000 Negro babies in the study had had measles and two of them had died and about 200 white babies had measles and one died.

This is a preventable disease, as you know, but most physicians and public health people are not aware that it happens in the first year of life and putting this kind of information out before the public is really important.

Senator MAGNUSON. That is what I wanted to get at, is there wide distribution of this information so that if we go ahead with it it will be used.

Dr. HARDY. Right.

Senator MAGNUSON. How do you do the studies that you mention in this area?

Dr. HARDY. Well, the patients, mothers and children, are distributed among the 10 collaborating institutions and in this there is various observations made.

Senator MAGNUSON. Are these hospitals or schools or both?

Dr. HARDY. They are both.

In the hospital with medical school personnel and actually following these mothers and children already has impact in terms of better patient care and better records. But the data that is collected from observing these patients is then sent to the office of biometry in the National Institute of Neurological Disease and Blindness and there put on punchcards and computer tapes.

The next step is that scientists in the NINDS and the institutions collaborating and some from outside, have access to the data and are responsible for the analysis and distribution of the information that is derived.

I think the point that I am really most concerned about is the fact that we are just now getting to the point where the data is available and can be used and we are being hamstrung really by having a major

budget cut and the people in the Secretary's Office and in the NIH tell me "Well, we can postpone these studies."

But we cannot.

Senator MAGNUSON. Of course, everybody tells us that up here. They are just now ready to go and, if you cut them, and I might say sometimes that goes on forever. But sometimes you have to conclude these things.

Dr. HARDY. Well, yes; this is getting close to being concluded.

Senator MAGNUSON. Now, you say we rank 13th in the world in respect to neonatal mortalities, is that correct?

Dr. HARDY. Yes; that is death during the first month after birth.

Senator MAGNUSON. First month after birth?

Dr. HARDY. Yes.

Senator MAGNUSON. And you attribute that to the fact that American women want to stay slim?

Dr. HARDY. I think this may be one of the very important factors.

Senator MAGNUSON. I don't know how this committee is going to stop that. And whereas, European women did not mind getting bigger and gaining weight?

Dr. HARDY. European women gain on the average about 25 pounds during their pregnancies. I don't know that this is the reason, but we have good evidence to suspect this may be a major reason and we have the data to look and see.

Senator MAGNUSON. Well, haven't you concluded that that results in smaller babies?

Dr. HARDY. Yes; smaller weight means we get smaller babies, yes that we know.

Senator MAGNUSON. Well, Norris and I will see if we can do something about that. [Laughter.]

Senator COTTON. Somebody has to do something. Doesn't keeping a woman's weight down in pregnancy make the birth less hazardous.

Dr. HARDY. The information we just now are making available shows for the 58,000 mothers this simply is not so. There is one qualifying piece of information and that is for the extremely large babies who weigh more than 10 pounds, birth may be more hazardous unless they are carefully handled, but a great majority of deaths and the great amount of damage accrues from prematurity and small birth weight.

Senator COTTON. One other question, and this on page 8—and previously you have touched on this—and you speak about the rubella study and it says it is just limping along for lack of funds.

I thought or had the impression that now that rubella vaccine had been developed the problem has not been as bad. I understand that there are plenty of children that are now growing up that have been affected by it. I thought the problem now is to get the vaccine delivered and if that were done it would attack the problem.

In other words, if you get the vaccine available to the congested cities and out to the remote areas, and particularly to the underprivileged people, that this problem would be taken care of in the future.

Dr. HARDY. I think you are quite right, Senator, but I think that there is an auxiliary problem. That for the long haul the vaccine, if properly used, certainly would take care of future epidemics, if you like, of congenital rubella.

But we are finding in our studies many things due to congenital rubella, which were not obvious at the time the children were small and by following the babies born in 1964 and 1965 in the wake of the rubella epidemic, we are now learning about a considerable number of more subtle problems.

For instance, we know and have known for many years that mothers who had rubella in the first trimester of pregnancy frequently have babies with cataracts and these babies were blind.

We are now learning that mothers who have rubella in the second trimester of pregnancy have babies who may seem normal at birth but who have other eye disabilities, severe myopia, which is progressive.

Our studies are curtailed because of a lack of funds and stopping us from learning all we feel we should know about the effects of the 1964-65 epidemic, but you are perfectly correct, that preventive aspects have already been unravelled and now understood in the matter of health care delivery.

Senator COTTON. I won't prolong this matter, but I felt this committee should try to get the best dollar value for every dollar we spend and that, in the case of rubella, the best dollar value is to deliver the vaccine, or make it available to all people of all groups rather than to use it in continuing studies of those who are already born that have the affliction. However, I am not suggesting that we should be indifferent to that problem.

Dr. HARDY. No; I understand, you are putting the emphasis in the right place.

Senator MAGNUSON. Thank you, Doctor.

**STATEMENT OF DR. KENNETH B. CASTLETON, VICE PRESIDENT FOR
MEDICAL AFFAIRS OF THE UNIVERSITY OF UTAH**

NATIONAL INSTITUTES OF HEALTH: DIVISION OF RESEARCH RESOURCES

Senator MAGNUSON. All right, Dr. Castleton from Utah has to catch a plane and we want to hear from him next and I am sure the others will bear with us.

Dr. CASTLETON. Senator, I am Dr. Castleton, vice president for medical affairs at the University of Utah for the last 2½ years and prior to that dean of the medical school for 7 years.

I am here to defend and support the programs in the budget request of the Division of Research Resources of NIH.

Would you like me to read the statement and perhaps we can cover it better that way or would you care if I comment and you ask some questions?

Senator MAGNUSON. We will put it in the record in full, but why don't you start on page 2.

Dr. CASTLETON. All right.

As you know, there are several grants and the general research support program is one of the most valuable grants we have ever received from the Federal Government for medical schools.

Senator MAGNUSON. For the record, Doctor, right there, we have \$1,166 million appropriated in 1971, and \$1,291 million has been suggested by the Budget and that is broken down into a number of categories.

But the general research support grants which you are talking about, first, there was in 1971 \$46,173,000, and the Budget suggests a cut of \$5 million.

Dr. CASTLETON. That is right.

Senator MAGNUSON. All right, proceed.

Dr. CASTLETON. In fact, the whole research support division has been cut substantially.

In 1969 it was \$84 million and for 1970 it was \$67 million and for 1971 it was \$66 million and the President's 1972 Budget had a slight increase of a little over \$67 million and it is almost \$68 million but with the increase in cost of living and so on it is not an actual increase. So I would like to support the coalition's 1972 Budget request which would be \$76 million as compared with the President's request of \$67 million.

This is for the entire division, not just general research support.

Senator MAGNUSON. Wait a minute.

Under the general research support grants, my figure is the \$5 million cut.

Dr. CASTLETON. That is right for general.

Senator MAGNUSON. And multidisciplinary centers, there is \$5 million added to that suggested and special programs of \$81 million that are just the same, or approximately the same as last year.

Dr. CASTLETON. I think that is correct. General research support in 1971 is \$43.4 million, is that what you have?

Senator MAGNUSON. All right.

Dr. CASTLETON. That is a \$5.2 million gap. To go back to the GRS program, this was initiated in 1962, as you know, and it was the first institutional grants.

As dean of the medical school, I found this to be of enormous value because it is flexible and you can use it either for a number of things, all related to research. It is a formula type of grant, based on the amount of money we are able to get. I have it, if you are interested.

Last year, we received \$281,000 at our school, based on the amount of actual research money.

Now, this is what we did with it. In the first place it helps to support our animal facilities, which was used largely for research and this is one of the functions of it.

Another function was to provide small grants to investigators who were starting up programs and didn't have a grant.

We gave 13 investigators a maximum of \$2,000 each last year to get them started.

Another use was to purchase equipment, research equipment, that is, for three department heads we recruited. It made it possible to recruit three outstanding department heads and made it possible for them to proceed with research without waiting for a long time for the actual research grant.

We also provided 30 summer research fellowships for 2d- and 3d-year medical students. This we found was of great value and not only did it make a real contribution to the research effort but it also greatly enhanced their educational experience here.

I regret very much to see that it is proposed this be reduced and I think with the great difficulty that the medical schools are having already, this would further aggravate it.

So I think that the stability that this grant provides for medical schools is of enormous value and I would make a plea that it not be reduced but be increased.

Senator MAGNUSON. Would you say that your project and what you have given to us on how it operates with one of these grants—would that be typical?

Dr. CASTLETON. Yes, I would say it is very typical.

Senator MAGNUSON. Very typical of all schools?

Dr. CASTLETON. Right. When I say "our institution" I think in most cases it would apply to all other medical schools as well.

Another program is the general clinical research center. As you know, there are 80 centers of this type and 70 medical institutions in which 2,000 research scientists admit patients for studies.

These patients have to be part of a formal program which has to be approved and the protocol has to be approved by the committee and directors.

The center actually consists of an inpatient bed unit of 15 beds. It was 20 beds in our institution and because of cuts it was down to 15 beds.

Senator COTTON. You are not referring to the multidisciplinary center?

Dr. CASTLETON. That is this. There are some that are not multidisciplinary but ours is.

Senator COTTON. The Budget recommends an increase in that from 52 to 57.

Dr. CASTLETON. Yes, however, it has been cut substantially in recent years and we were cut or we were affected by that cut which made it necessary to reduce our beds from 20 beds to 15, but there is an increase provided for that.

Senator MAGNUSON. Apparently they took off \$5 million, or suggested taking off of general research support and putting it down in multidisciplinary centers.

Dr. CASTLETON. Yes, we would like to see the general research support get more support. Rather than taking it from one pocket and putting it in another, we feel both need support.

One of the great values of the clinical research center is it trains a lot of people.

For example, during the past year, and let me give you the figures, among the personnel who received training in this unit in the past year were 40 medical students, 32 interns, 12 residents, 16 post doctorate fellows and trainees, 8 dietetic interns and 63 student nurses.

In 1969 and 1970, there were 36 papers published on work done in the center and another 14 papers presented which will be published in the future.

Senator MAGNUSON. Now, on these grants you can use them within reason for what you think are your priorities in your own area?

Dr. CASTLETON. It has to be related to research for things like animal facilities and library can participate, we use a little for library and student research fellowships for students and startup grants of a small nature, these all have to be related to research, but they can be used partly for salaries and equipment and partly for supplies.

Senator COTTON. Referring generally to general research support grants?

Dr. CASTLETON. That was the general research support grant I was speaking of then, not the clinical center.

The clinical center amounts to about half a million dollars a year.

Senator COTTON. What are the staple programs?

Dr. CASTLETON. Well, one of the programs or one of the special programs is the computer program which we participate in.

There is also the primate centers which we do not participate in. There are really four programs under the entire program, general research support, general clinical research centers, special programs, and the animal resources.

The only one we participate in in the special projects is the computer center and I have a statement.

Senator COTTON. You have a statement, you have a choice or leeway in what you choose, in what special programs, on how you use that money?

Dr. CASTLETON. In our case it is our computer program.

Senator COTTON. But you made the decision?

Dr. CASTLETON. No, it is all earmarked. For example, we have a specific amount for clinical research and a specific amount for GRS and a specific amount for the computer centers.

Senator COTTON. But it is only the GRS that you can exercise your own judgment?

Dr. CASTLETON. That is right. In GRS there is a fair amount of flexibility.

Senator MAGNUSON. But when you got money for the computer program, or in this amount, it was specified for the computer program?

Dr. CASTLETON. That is right.

Senator COTTON. But you applied for it?

Dr. CASTLETON. Yes.

Senator COTTON. So you made a preliminary decision that is what you want?

Dr. CASTLETON. That is right, and the same with the clinical research center. That is a very specific amount.

Senator MAGNUSON. Well, we will put your statement on the computer program on the record.

Dr. CASTLETON. All right.

We have a very outstanding computer program.

Senator MAGNUSON. Then on page 6 you have your conclusion.

Dr. CASTLETON. Yes, I have a very brief conclusion in which I simply plead for an expansion of the support rather than restriction. The GRS grant had been cut down quite a lot recently, in the last few years, the clinical research center has been reduced, and with the great difficulty that medical schools are having now, some on the brink of financial chaos, I would make a strong plea in favor of not only maintaining the support but increasing it.

Senator MAGNUSON. Well, I have no further questions.

Senator COTTON. I have just one.

In the University of Utah, do you require a full 4 years of college?

Dr. CASTLETON. No, we require three. About 85 percent of our students.

Senator COTTON. You require three. How many years are required in the medical school and how many years are required in internships and/or residence?

Dr. CASTLETON. All schools require 4 years of medical school. We started a 3-year program which really condensed the 4 years into 3 years, is what it amounts to.

All States require a 1-year internship and no States require a residency training program but about 75 or 80 percent decide they want a residency program, but it is not decided by law, it is purely optional.

The student decides it himself. To answer your question, we require 3 years of college for 4-year medicine but most take four and we require 4 years of medical school and of course the law requires a year's internship and most of them go on to special training.

Senator CORTON. Your requirement then is about 8 years?

Dr. CASTLETON. Yes; that is right.

We would like to reduce it. We would like to shorten the program. It is very difficult, because we never had a time when we had to teach so much. We would never try to teach more and more in less and less time.

Senator MAGNUSON. Off the record.

(There was a discussion off the record.)

Senator MAGNUSON. All right, I have no further questions. We thank you very much.

Dr. CASTLETON. Thank you very much, Mr. Chairman.

(The statement follows:)

I am Dr. Kenneth B. Castleton, currently Vice President for Medical Affairs of the University of Utah. Prior to that I was Dean of the College of Medicine at the University of Utah for seven years.

I greatly appreciate the opportunity of appearing before you. My purpose is to support the programs and budget request of the Division of Research Resources of the National Institutes of Health.

First, I would like to discuss briefly the Division of Research Resources and its programs and the value and impact of these programs from a general or "global" standpoint. Then I would like to describe briefly the impact of these programs on our institution, and how we utilize the funds received from the DRR.

The purpose of the DRR is by definition, to advance the categorical programs of NIH. It does so by acting as a catalyst to NIH in promoting the nation's biomedical research effort.

In order to do good research we must have talented and highly trained scientists, and they must be given the opportunity, the tools and the environment to do their work if they are to generate new knowledge. These things do not "just happen." DRR helps to provide all of these including the training of scientists. The key work is opportunity, and DRR does much to provide this.

Now I would like to say a few words about the DRR programs at the University of Utah College of Medicine.

We regard the programs in our institution that are made possible and supported by DRR as among the most important and most valuable in our school. We guard these funds jealously, and we spend them judiciously in order to make the best possible use of them, we need them desperately and we are most grateful for them. The distinguished research record at our institution is due in no small measure to this support, and we believe that these accomplishments can be and in many cases are being repeated in other institutions and will continue if these programs are maintained.

GENERAL RESEARCH SUPPORT PROGRAM

This is one of the most valuable grants provided by the Federal Government for support of medical schools and the first one developed under Public Law 81-798. It was initiated in 1962 and was the first institutional grant of this type, providing considerable flexibility in the use of the funds. It has been used in our institution in the following manner:

1. Partial support of the operation of the Vivarium (animal facility) both for personnel and supplies. This is justified under the terms of the grant since much of the use of the Vivarium is in the area of research.

2. Each year we have given small grants to investigators as seed money to initiate research projects which have no other funding. This year thirteen of our investigators received grants ranging up to a maximum of \$2,000 each. It has launched successful careers for several bright, young investigators. It has also made it possible to attract private funds.

3. Some funds were used to purchase research equipment which was needed to attract and support three new departmental chairmen. We succeeded in attracting three outstanding people to our institution and made it possible for them to proceed with research without delay.

4. It provides stability for faculty salaries and helps provide financial support for recruitment of new faculty on short notice.

5. Summer research fellowships have been provided for 30 second and third year students. Not only have these students been of great value in assisting on research projects, but they have received valuable training in laboratory research procedures, thus enhancing their educational experience.

The benefits described are not unique to our institution but apply to all medical schools to a greater or lesser degree.

Loss of this support would have a serious impact on our medical schools. In our institution is provides support for seven faculty FTE's as well as supplies for the Vivarium, research equipment and supplies, and small grants for student research. This loss would downgrade our institution and probably would also result in the loss of some of our faculty members. The great need is for stability in medical schools and the General Research Support Grant does much to provide this.

THE GENERAL CLINICAL RESEARCH CENTER

This is another program funded by the Division of Research Resources. It currently supports 80 centers in 70 medical institutions in which 2,000 clinical research scientists admit patients for study. It is one of the most valuable units of our institution. The basic objective is to provide a special facility which consists of a carefully controlled research environment for the care of patients and subjects that are being studied in an attempt to solve problems related to disease, its cause and treatment.

The Center consists of an inpatient bed unit of 15 beds where specially trained personnel, especially nurses and paramedical personnel provide specific services, data-recording and specimen collection for clinical investigation. Intrinsic to the bed care unit is a metabolic diet kitchen where detailed control of dietary intake can be maintained and the special diets essential to the performance of the clinical investigation provided. In addition, a core laboratory may provide specialized biochemical and other technical procedures unavailable in the general hospital laboratories but essential to the ongoing research.

An inseparable part of the goals of the program is the provision of training for professional and non-professional personnel at all levels, including students, interns, residents, and faculty in medicine, nursing,

and other areas. This training is of such a nature that it otherwise would not be possible to provide.

In order for a patient to be admitted to this unit, he must have a specific condition which qualifies in a research project for which protocols have been reviewed and approved by an advisory committee as well as the director of the unit. All protocols are also reviewed by the committee on human investigation to protect the rights of the subject or patient.

Many kinds of investigation are carried on in our Center in Utah. These vary from studies for the improvement in techniques of kidney and liver transplantation to investigations in cancer, emphysema and hormone problems.

Among the personnel who received training in this unit in the past year were 40 medical students, 32 interns, 12 residents, 16 postdoctoral fellows or trainees, 8 dietetic interns, and 63 student nurses.

In 1969 and 1970, there were 36 papers published on work which was done in this Center, 9 abstracts of papers published, and 14 papers presented, most or all of which will be published in the near future.

THE COMPUTER PROGRAM

The Division of Research Resources has supported the computer facility located at the Latter Day Saints Hospital which has an affiliation with the University of Utah College of Medicine. This facility has provided computer services for medical researchers in this area and has developed programs in special hardware for improving the delivery of health care. As a result of research carried out under this grant, there has been developed a battery of computer-based medical services which not only are providing direct services through the Regional Medical Program to five hospitals in Salt Lake City, but are also serving as a prototype for the development of a whole new industry based on computer applications in medicine.

The program began with automation of the heart catheterization procedure. The cost of performing heart catheterization was cut in half by eliminating the time required for the physician to carry out the analysis which is done directly on-line at the time of data collection by the computer and by eliminating the need for the recorder and recording technician. All the logical rules by which a physician deduces a diagnosis from the data collected and programmed into this computer have been formalized so the diagnosis is now standardized and no diagnoses are made except those documented by the data collected. This program is in use in 4 heart catheterization laboratories in Salt Lake City, at the Veteran's Administration Hospital in Minneapolis, the Massachusetts General Hospital, and the George Washington University Hospital.

Computer based programs for monitoring patients in Intensive Care Units and in the operating room are a natural extension of the physiological methods automated for the heart catheterization laboratory.

A third area of impact on the health care system involves automated screening of patients at the time of admission for primary and secondary disease. Most of the patients entering the hospital under these circumstances are already diagnosed, but in many cases secondary conditions will be found which should be detected and evaluated prior to major surgery. To accomplish this, programs for automated interpretation of certain tests, automated acquisition of the patient history, direct interface with 12-channel blood chemistry device, and other data including blood results, vital statistics, and blood pressure checks. All this information is made available to the doctor in the form of a report on the evening of admission to the hospital. This information also becomes a part of the file on the patient to which additional laboratory work can be added allowing us to provide serial reports of a particular variable over the course of a hospital stay.

Finally, let me emphasize that, although computers are proving to be of enormous value in medical care and research, they will not replace physicians and will not solve all of our problems.

CONCLUSION

It is our studied opinion that the programs of the DRR should not only be retained, but should be expanded and support should be increased, and I believe that all medical schools feel the same as we do.

To withdraw or reduce these programs and this support will further complicate the efforts of medical schools to carry out their functions and to achieve their objectives of alleviating the health manpower problem and in providing more and better health services to the people -- a dominant national objective. Moreover, medical schools are already on the brink of financial chaos. To reduce these programs will further complicate their problems. Thank you.

SUBCOMMITTEE RECESS

Senator MAGNUSON. All right, we will recess until 2 o'clock.
(Whereupon, at 12:05 p.m. the subcommittee was recessed, to reconvene at 2 p.m.)

(AFTERNOON SESSION, 2 O'CLOCK, WEDNESDAY, JULY 14, 1971)

DEPARTMENT OF HEALTH, EDUCATION, AND
WELFARE

NONDEPARTMENTAL WITNESSES

STATEMENT OF DR. RICHARD L. SCHIEFELBUSCH, PROFESSOR AT
THE UNIVERSITY OF KANSAS AND DIRECTOR OF THE KANSAS
CENTER FOR MENTAL RETARDATION AND HUMAN DE-
VELOPMENT

MENTAL RETARDATION RESEARCH CENTER

Senator COTTON. The chairman is delayed for a few minutes. He will be here very shortly.

The subcommittee will come to order.

We will resume receiving testimony before the Appropriations Subcommittee on Labor, HEW.

Our first witness this afternoon is Dr. Richard L. Schiefelbusch, professor at the University of Kansas, and director of the Kansas Center for Mental Retardation and Human Development.

Dr. SCHIEFELBUSCH. Mr. Chairman and members of the committee, my name is Dr. Richard L. Schiefelbusch, professor of the University of Kansas, and director, Kansas Center for Mental Retardation and Human Development.

I appear today as a representative of the 12 mental retardation research centers which were established by Public Law 88-164 in October 1963.

The centers have been developed by a combination of professional and administrative talent including staff members of the National Institute of Child Health and Human Development.

To locate and develop these centers, universities have committed themselves for a period of 20 years and have consigned optimum space, talent, and planning resources.

In effect, they have entered into a partnership with a Federal agency to achieve a solution to a pressing national problem.

The Congress appropriated \$26 million of Federal funds and the universities supplied another \$14 million from their own private or public resources for construction of centers authorized by Congress.

All of the centers are now in operation and 11 of the centers have fully completed their construction.

These centers are at the University of Washington, Seattle, Wash.; George Peabody College for Teachers, Nashville, Tenn.; Albert Einstein College of Medicine of Yeshiva University, Bronx, N.Y.; University of California at Los Angeles, Los Angeles, Calif.; University of Colorado Medical Center, Denver, Colo.; Cincinnati Children's Hospital, University of Cincinnati, Ohio; the University of

Chicago, Chicago, Ill.; Children's Hospital Medical Center, Boston, Mass.; Fernald State School, Waltham, Mass.; the University of Kansas, Lawrence, Kansas City, Kans., and Parsons, Kans.; and the University of North Carolina, Chapel Hill, N.C.

The center at the University of Wisconsin in Madison, Wis., is scheduled for completion by July 1972.

This is a period of rapid progress in research in both medical and behavioral sciences.

The research centers in mental retardation are focusing and accelerating these gains in behalf of the mentally retarded and their families.

In this way the centers are making a major contribution to the Nation. In this brief report I can only emphasize gains in three sectors of the research of the centers.

First, gains in prevention: Years ago certain infants were born with anemia and severe yellow jaundice and if they survived, were severely mentally retarded.

Now because of research which led first to diagnostic tests, then to transfusions of the baby while still in the womb and finally to a vaccine which can be given to the mother, obstetricians can suppress the destruction of red blood cells which caused the jaundice and the yellow pigments which damaged the brain of newborn infants.

I don't know how to measure the cost or the savings in dollars of these results—however, I do know that the sufferings of hundreds of potential sufferers, both parents and children, have been prevented.

A dramatic example of the value of prevention is the research which led to the discovery and development of the German measles vaccine.

Its widespread use should wholly prevent the ravages of epidemics such as the one in 1964-68 which affecting pregnant mothers yielded 20,000 brain damaged, physically handicapped newborn infants, the cost of whose continuing care is estimated at \$1 billion, a cost which takes no account of the suffering of the babies and their families.

Brains may be damaged before birth by infections of the mother, or after birth by the proteins of ordinary foods or by the sugar in mother's milk, the latter because of genetic defects.

Research has led us to diagnostic tests which serve as guides to both treatment and genetic counseling in these and many other instances.

The guides help doctors define more precisely the indications for abortions. There is increasing evidence that severe malnutrition in early infancy may permanently affect learning ability and in some instances may affect their subsequent ability to assimilate nutrients and to attain the necessary energies to maintain health.

Second, other developmental disabilities are receiving intensive investigation by combined teams of medical and behavioral scientists.

Prominent among the disabilities are speech and language and reading. The devastating language impairments among the mentally retarded have long been regarded as their most significant problem. For unless they can be trained to communicate with a demanding, impatient world, they cannot take their place in some representative environment and must instead be sheltered in an institution or a care center.

So the research centers are combining efforts in developing intensive, long-term programs for speech and language training. One volume of

their work will be published this fall by University Press and more information will soon follow.

Third, other research stresses learning deficiencies. For instance, we are studying the effects of antibrain antibodies on learning and memory processes in the developing organism and are extending this research to include interaction effects of the environment on development and behavior.

Also research has been undertaken to study the effects of retardate blood components and lymphoid cells on the brains of developing organisms.

Still other research on long- and short-term memory attempts to retrain the strategies used by lower functioning children.

Through memory training they can become more effective in learning activities and can attain new skills learning to read, arithmetic, and other academic learning. These and other efforts are designed to reverse many of the trends of retarded development that lead to dependent living conditions.

Important gains are also being made in efforts to teach and train both professional and nonprofessional adults to work with the retarded.

We have learned that poor learning is not just a function of retardedness, but that actually we were using deficient methods to teach the retarded.

Once we accepted this damning implication, we consigned a number of talented people to the task of designing effective programs.

The results often are impressive. Even teenagers with diagnosed intelligence quotients of 30, 40, and 50 have been taught sufficient skills of a personal, social, and vocational nature that they have taken their place in society as partially or wholly economically self-sufficient.

We are beginning to understand the further goals that intelligently designed and maintained programs can achieve. Hopefully, an increasing number of such programs will replace the apathetic, purposeless conditions of yesterday—conditions that consign the retardate to a life of dull, dependent living in inadequate but expensive institutions. Neither they nor we can accept this intolerable future.

Fortunately, intelligent programs can be more intelligently taught so that parents, aides, care workers, and less expensive professionals can assume positions of responsibility in effective programs. The savings to society are just becoming apparent. The aim is to give the retarded better programs at a lower unit cost.

The message I wish to leave with this committee is that now is the time for us to accelerate our efforts. We have the facilities, the dedicated leaders and the best momentum than at anytime in our history. We must continue to improve upon our efforts. The centers desperately need enlarged funding.

The National Institute of Child Health and Human Development which is primarily responsible for managing and funding these centers was unable to fund a million and a half of the high priority research proposed for 1971.

By next year the figure will be \$5 million for research and training projects unless additional appropriations are made for their support.

This means that as the research of the centers is set to advance markedly due to the completion of the buildings and the development

of research programs, their efforts will be cut back or delayed indefinitely.

This condition would quickly become serious. The centers are likely to lose key staff and to find their promising development placed in limbo with consequent reduction in expected research productivity.

In detail, I am asking this committee to sponsor additional appropriations as follows:

1. An additional \$750,000 for core support.
2. An additional \$3 million for general projects support, and
3. An additional \$800,000 for research training.

This is a total of \$4,550,000 above the currently recommended budget.

Each of these requests has a special urgency. First, the additional core funding is needed to permit the centers to fully establish their basic center structure and to maintain an essential efficiency of administrative and research efforts.

A great deal has been accomplished with the current appropriation, but it will fall short of the minimal needs for efficient operation for the coming training.

The requested \$3 million for general project support will permit NICHD to fund the best of the proposed research of the centers and will permit further critical developments in priority areas such as infancy and early childhood, and specialized training.

The additional \$800,000 requested for research training will allow for minimal training projects in each of the centers and thus allow all of the centers to participate actively in developing the needed research manpower for the field of mental retardation.

Funding for research training is especially critical at this time. Unless new funding is provided, one major contribution of the centers—namely, the training of the next generation of investigators to study tomorrow's problems will be severely limited.

This is my second appearance before this subcommittee in a week. Last week I spoke briefly for the request of an appropriation for the already authorized Developmental Disabilities Act, title II.

This appropriation would provide additional funds for the university affiliated facilities. These facilities are for the training of critically needed professional and paraprofessional workers in the mental retardation settings, especially the institutions and community clinics.

I have already indicated that research on methods of training the retarded and training the trainers of the retarded is part of the program of the research centers.

I mention this to emphasize that the UAF's and the research centers programs are compatible and supportive.

The UAF's will benefit greatly from the research of these companion research facilities and will indeed apply their research products so as to assure greater effectiveness in training personnel for service settings.

Nine of the 12 centers I represent today have UAF units on their campuses and have already combined research with training and service to the obvious benefit of professional workers and the handicapped individuals they are charged to serve.

On behalf of the research center directors I extend to you and members of your staff an invitation to visit the centers—at least the center

in your State or your region so that you may see what has been accomplished already in the implementation of Public Law 88-164.

Better yet, you may talk with the staffs to better understand their enthusiasm and their plans for future research.

Such visits emphasize that there can indeed be a better future for today's handicapped and a far better future for the generations unborn.

I would like to summarize further and state that there are 12 centers for research of the mentally retarded and for related aspects of human development.

We have in our center an executive committee, and we hold meetings at least twice a year in addition to some committee meetings.

These meetings are designed to make us all familiar with our common problems and aspirations, so the testimony I have given here is built upon considerable amount of firsthand knowledge, which has been summarized, and in conjunction with advice from NICHD.

We have drawn up summaries of what we think are most urgently needed funding.

It is relatively modest, nevertheless crucial for us, and crucial at this time.

As I have stated in my testimony, construction began on these centers, shortly after the authorization, which was back in 1963, but on a different schedule of construction, planning and completion, and these centers have gradually been completed now, almost in total.

All but one of them will be dedicated by the upcoming midyear, with one exception, which is at the University of Wisconsin, so 11 of the centers are now almost completely operational, and, of course, at the most crucial time for program development.

I am sure if we had been infinitely wise and more timely, we would have scheduled ourselves a little differently than we did.

We are coming into the full-time of program development when funds are rather tight, not only Federal funds, but funds relative to the respective State levels.

Nevertheless, this is the time we have, and it is when our staffs are there, and our programs have the opportunity to move into full productivity, and we feel that there is indeed an important national mission that is tied up in these centers.

It is our objective and our job to bring to bear the full range of talents and expertise that our respective universities provide us, to focus these resources and efforts and to draw from other resources, so that we have a focused program, attacking the central problems of mental retardation.

In my testimony, I have made reference to prevention as one of the principal issues, and this is inescapable, because if we do not find ways to prevent some of these devastating illnesses that result in profound and severe mental retardation, we will continue to have numbers of these subjects living a full life and in highly protected hospital environmental, intensive care.

It is very expensive and produces much anguish for the families involved, but as medical science improves, and we are able to bring together teams of researchers, it is possible to do an important extensive job of prevention.

For instance, at our centers we now have a team combining pediatricians, obstetricians, and gynecologists, psychologists, biochemists, and physiologists.

Now, if course, these kinds of combining of expertise can attack the diseases, and result in the attacking of problems that would not be possible ordinarily without resources and conducive arrangements we have set up.

Now, in my testimony, I have made reference to some representative, preventive issue, and I am sure this committee has heard some of these before.

I do not want to take time referring to them, or alluding to how excellent we are.

What I would like to do is to take the rather small amount of time I have, and move directly to the requests for funding, that we have set up in the testimony.

In specific detail, I am asking for an additional three-fourths of \$1 million.

That would be \$750,000 for core support. Core support is an extremely important dimension of the funding, because it allows you to set up funds to be more efficient and more stable, and to have the funds develop the kinds of central staff that allows you to have the continuity that a good research program in a productive center requires.

Second, I am asking for \$3 million for general projects support, because we are at a time now of rapid expansion in our research development, and the additional moneys would be extremely essential, if we are not going to experience a cutback, and, of course, a diminution of our entire effort.

Last year there was over \$1 million of research, worthy research requests that the National Institute of Child Health was not able to support, by our most conservative and yet careful estimates, and we have come up with the figure that for next year there will be \$5 million of requests that would not be funded.

I think you cannot maintain an effective program wherein the low probability of support for the work that the scientists would want to do, you cannot do it.

You soon have of course a loss of morale, and a tendency to lose staff.

This is an extremely bad time for that to happen. Also, I am requesting \$800,000 for research training moneys.

If we do just a quick examination of that figure, among 12 centers, only two of which have research training projects at this time, that leaves 10 of them totally unsupported for formal training purposes, yet if these 10 are going to participate in production of new scientists for the next generation, we are going to have to have some kind of a training grant to enable them to do this.

That would be roughly equivalent to an \$80,000 grant to each of these major centers.

Senator COTTON. How much for each?

Dr. SCHIEFELBUSCH. \$80,000. That would of course cover stipends, supervision, and the other costs that are incurred in the training process.

Senator COTTON. Now, the justification for the budget recommendations says that the \$4,006,000 net increase in 1972, will be used partially to expand research for mental retardation. It states that the net increase provides a \$6,100,000 increase for the population reproduction program, and a \$1,500,000 increase in the mental retardation research centers. The increases are offset by decreases of \$1,341,000 in the adult development and aging program, \$1,891,000 in child health programs and a \$434,000 in general research support grants. The Bureau of the Budget was apparently conscious of the importance of the research of the retardation research centers, because it shaved other items, one of them being of course the child health programs.

Now, in addition to the extra \$1½ million the budget allowed, you feel that you must have how much in total?

Dr. SCHIEFELBUSCH. Well, that is the figure I have given you.

Senator COTTON. You want \$4,550,000 in addition to the increase of \$1,500,000?

Dr. SCHIEFELBUSCH. Now, the \$1,500,000 is not for moneys for these research centers. That is for the entire agencies.

Senator COTTON. That is what it says. It says \$1,500,000 increase in the mental retardation research centers.

Dr. SCHIEFELBUSCH. That covers categories of core support and general support.

That is what I am saying, it is not an adequate figure, not for the whole 12, to cover both the basic needs of research support and core support, and also, there is no additional moneys for training.

Senator COTTON. It gives the same this year for training, no increase?

Dr. SCHIEFELBUSCH. That is right.

Senator COTTON. Now, tell me exactly, this additional \$4 million, \$4½ million roughly, in addition to the \$1½ million, what would it be used for?

Dr. SCHIEFELBUSCH. It would be used for three purposes, for general support, support of general research, primarily program projects and project grants, and I would guess some, what we would call demonstration or applied research grants, all of which comes under the heading of research support, also core support, because the centers have to be maintained in terms of the stable central staff, administrative staff primarily, and finally some additional funds for training.

It is not possible to provide encouragement to the various centers, to even apply for research training grants at this time, since the funds are just not there.

I find that to be unfortunate as a condition, because indeed, these are prime resources for training, they should be engaged in training.

They are in a position to do the kind of training that we had not had in the past.

The purpose of locating these centers on university campuses, good medical center campuses, is so you can do training and draw upon resources, to increase the whole effort along the lines you want to go.

Senator COTTON. Well, now, 11 out of 12 are now staffed?

Dr. SCHIEFELBUSCH. In some degree of completeness; yes.

They have made some progress on staff.

Senator COTTON. In your own center, the University of Kansas, how much did you get allocated to you for training in fiscal 1971, this last year?

Dr. SCHIEFELBUSCH. We are one of the two centers that have training. We have about \$120,000 for training in all forms. That includes stipends, supervisory staff, and various other resources. We have a total of 18 trainees supported under that grant.

Senator COTTON. You got that out of a sum of \$9,850,000?

Dr. SCHIEFELBUSCH. Right.

Senator COTTON. And how was that distributed; you only got how many thousand?

Dr. SCHIEFELBUSCH. I am simply talking about my center.

Senator COTTON. And you got how much?

Dr. SCHIEFELBUSCH. That is about \$120,000. I use that simply as an illustration, other than a suitable size grant to make a major training contribution.

Senator COTTON. How much would your center require for the coming year for training?

Dr. SCHIEFELBUSCH. Well, we currently have no application pending.

We would like to expand this of course. We have resources for a greater amount of training effort than that, but I think it is just a wishful piece of thinking to extract more than that.

I am not in a position to speak authoritatively about the total budget of this agency.

I am familiar through my role as a director of a center with planning of what is available, I am told, through the support of the centers, but I do not—

Well, I do know that the agencies move as hard as they can toward the fulfillment of their objectives and of their obligations, and the mission of these centers, but, you see, they cannot crowd out their other programs.

This is just not a feasible expectation. Setting up a surveillance of these 12 centers has been a major drain upon this agency, and what I am requesting is specifically moneys to enable them to do this job without crippling them, or if they move in the other directions, without crippling ourselves.

There has been a funding lag, of course, they have done the very best they can, their staff has been quite instrumental and helpful, but I think what we are faced with in the year ahead, and would be worse the following year, because if we are not going to have the funding to develop resources, and do the kind of research we want to do, it is a critical time.

I heard that same issue used this morning, and I know it is a cliché in certain respects, but we are just coming into our full facilities.

We did not have them. Some of it had been built for us as long as 2½, possibly 3 years, but the bulk of them were completed last year, or will be finished this fall, and now is the time that we faced with the crutch, and in speaking for the other directors, I am simply trying to speak the realism of what we are trying to do.

We are of course trying to seek funds from other sources too, but because of the very earmarked nature of our centers, and the fact that the responsibility for maintaining the conditions of the centers have been given to the NICHD, it is not as convenient for us to submit our projects to other agencies.

We are too ostensible and too well known, and that these projects would indeed be a part of the——

Senator MAGNUSON. You consider this to be a wholly Federal responsibility?

Dr. SCHIEFELBUSCH. No, it is not.

Senator MAGNUSON. Because many of these centers were set up, when we did this, we said we were going to help them be responsible to the community, and in turn the community would be responsible to the centers.

Dr. SCHIEFELBUSCH. Yes, that is correct.

May I be very candid?

I am not trying to make a promotional pitch to you gentlemen.

I am not very good at that anyway, but a center director is a man who is faced with a number of very direct contingencies.

First of all, he has got the parents and the organizations, who have great emotional stake in these children, and, of course, they have been led to believe that these centers are going to produce some new important or powerful ways of making these lives more fruitful, but we have been hit with the crunch at the State level too, and it is not possible to accept the obligation of doing important research, which is a job, fulfilling an important humanistic responsibility, holding together a staff that is of course a very high-priority group of people if they are the kind you want.

Senator MAGNUSON. How much does the State contribute to your center?

Dr. SCHIEFELBUSCH. Senator, I have made two recommendations.

Senator MAGNUSON. How much are they giving you?

Dr. SCHIEFELBUSCH. I think my total budget available to me, for the entire purpose of supporting six units on three campuses is about \$125,000.

Senator MAGNUSON. How much?

Dr. SCHIEFELBUSCH. \$125,000; that is my core support from the State.

What I am trying to say, these kinds of requests I make at the State level are deleted, as far as I can make out, pretty much on political grounds. It is a difficult time, very difficult time. I am deleted on category.

Senator MAGNUSON. We all know it is a difficult time, but sometimes I hope somebody would realize that the Federal Government has a bigger deficit than the State, and when the State does not want to do something, then they run to the Federal Government.

It is like revenue sharing. We are going to share a deficit with the States.

Dr. SCHIEFELBUSCH. I understand the point. I do not want to press this issue.

Senator MAGNUSON. I do not want it to be understood that we do not have great responsibility, and that we should not come in, and I am saying that we should do everything we can to see that these things keep going.

Dr. SCHIEFELBUSCH. Let me put it a little differently. There is a difference between having core support and some central support, but you do have to have a certain basic stability in a program of this kind.

Just what the optimum percentage is, I don't know, but I would say the person does not have a pretty stable opportunity to compete

for an appropriation as it is at some level of probability, if it is less than that, you lose your staff, you just cannot hold your program together, and that is the problem we are facing.

I would say if I could count on even 40 percent of the funding I need—

Senator MAGNUSON. And knew you were going to get it.

Dr. SCHIEFFELBUSCH. On a fairly high probability basis, if we submit good requests, if we make good demands in a sense for our purposes, if we could do this well, that I could count on 40 percent, I could always be sure of a program that I could maintain and have stability, but it cannot be pushed below those figures. You just cannot do it.

Senator MAGNUSON. The State can push you below their figures, the local community can push you below their figures, but nobody wants the Federal Government to go below those figures.

Dr. SCHIEFFELBUSCH. What is needed, Senator, is a teaming up of the two sources of support. That really has not come forward yet.

Senator MAGNUSON. So you have a reasonable assurance there will be some stability in this thing, going from year to year.

Dr. SCHIEFFELBUSCH. Right.

Senator MAGNUSON. Our problem, we run from year to year, and the State runs, I am sure, it runs for 2 years.

Dr. SCHIEFFELBUSCH. Yes.

Senator MAGNUSON. And we never know what is coming up from the Budget, and we never know what the next one is going to be.

Dr. SCHIEFFELBUSCH. What I have presented, it seems to me, and to my colleagues, after careful consideration, would be the kind of request that would enable us to do an effective job, a minimal request.

Senator MAGNUSON. I think your request is reasonable. I do not think it is unreasonable.

Dr. SCHIEFFELBUSCH. Particularly, if I could single out one issue, there must be an expansion of the training.

This figure you give me of \$9 million for the entire agency, it comes as a surprise. There must be a large block of training built in there in some way that is not accessible to this kind of program, that is supporting certain kinds of stable training functions and medical schools, something of this kind.

It is certainly not something that is responsive to the demands of these centers.

I know there were 30 requests this last year, and two new grants were approved.

Senator MAGNUSON. New grants?

Dr. SCHIEFFELBUSCH. New. Some were of course refunded.

Senator COTTON. I think this committee had better find out what happened about the \$9 million plus. It is quite obvious even the hard-headed, tight-fisted Bureau of the Budget recognizes the importance of your work, because they reduced adult and the aging programs, and other parts of the children's programs to give you even a million and a half over last year.

Dr. SCHIEFFELBUSCH. That was taken last year. That is not in the current budget.

Senator COTTON. Yes; it is in the current budget.

Dr. SCHIEFFELBUSCH. I was not aware of this. I was going on figures that were available as of our last meeting, which was 2 months ago.

Senator COTTON. Yes; that is what I read in the record. That in itself shows that they realize the importance of what you are saying to us, even though they may not have adequately cared for it.

It is up to us to do what we can.

Dr. SCHIEFELBUSCH. I do not want to have an overnegative overtone here, but I am extremely grateful for the support that has been provided for the kind of resources we now have available to us, so that we can do good work.

I have deviated from my script and provided some indication of frustrations. I am sure you know that is only a natural response on my part, for my colleagues would like to do a better job than they are doing.

What we are trying to do is very important, and I think in time of development of the program, we are in better shape than we have been before.

In the past years, it was commendable, I think the number of truly bright and able people that this field attracted.

I think that has increased many fold.

Senator MAGNUSON. Does the local school district contribute anything when you are taking care of their children that might be a burden on the school system?

Dr. SCHIEFELBUSCH. Yes.

Senator MAGNUSON. They do?

Dr. SCHIEFELBUSCH. Yes.

Senator MAGNUSON. How much do they contribute?

Dr. SCHIEFELBUSCH. It depends on the kind of program you are setting up.

If you are bringing to the campus the children, they probably would provide the cost of the teacher.

Senator MAGNUSON. But they would have to be youngsters that I suppose technically you would say there would be a problem of the school district, and you would take over, relieve them of their problem?

Dr. SCHIEFELBUSCH. What you do, you set up a partnership with the district.

Senator MAGNUSON. Per person or per school?

Dr. SCHIEFELBUSCH. For purposes of your having the class, you of course try to work out and improve, develop a superior method of teaching and instructing.

Senator COTTON. I want to correct one thing. I was wrong, and you are right about the \$9,800,000 for training grants. Only 1 million went to mental retardation last year.

Senator MAGNUSON. Well, the only purpose of my discussing it with you, I understand what you are talking about here, but we are trying to get a little better partnership on all of these programs, and we are looking for nothing more than that.

Dr. SCHIEFELBUSCH. The amount I quoted, of course, this is what goes to support my office, and my supervisory people.

What is contributed by the university and the medical school, it goes far beyond that.

Senator MAGNUSON. Yes; they make contributions that are intangible; you cannot value them in dollars and cents. I understand that.

Dr. SCHIEFELBUSCH. That is right.
Senator MAGNUSON. And that happens all over.
All right. Thank you very much.

STATEMENT OF GEN. ANDREW P. O'MEARA, NATIONAL CHAIRMAN OF THE
POPULATION CRISIS COMMITTEE

Senator MAGNUSON. Gen. Andrew O'Meara, chairman of the Population Crisis Committee, has submitted written testimony which will be included in the record at this point.

(The statement follows:)

I am General Andrew P. O'Meara, National Chairman of the Population Crisis Committee. I have had considerable experience in the field of research and development during my military service. I am here today as an informed private citizen to express my own views and my concern for the proposed funding of population research in Fiscal Year 1972.

Of the more effective means of fertility control in use in this country two, the oral contraceptive or pill and the intrauterine device or IUD, are fairly recent technological developments. Despite fluctuations they also have the most rapidly growing usage. Unfortunately this does not mean that they are highly satisfactory methods nor that they are adequate to the needs of the American people. In fact, from a scientific standpoint they must be assessed as relatively primitive. They are what scientists describe as empirical approaches. Both the IUD and the pill have distressing side effects for many women. Many women cannot use the pill at all for reasons such as blood pressure, kidney disease, tumors, diabetes, varicose veins, and others. A recent study done in several areas of the country shows that one woman in three who started using the intrauterine device stopped using it within 18 months. For the pill the figures are even worse. Almost half the women who began the use of the pill stopped their use within 18 months.

The methods present serious difficulties in the delivery of services to the user. Both the pill and the intrauterine device require continuous medical monitoring. When the patient is poorly educated she may require extensive instruction and repeated reassurance by program personnel. Costs are high. Finally we are faced with the problems of usage over long periods of time. Many women reach their desired family size by the age of 20 or soon thereafter. What are they to do for the next 25 years? We do not know whether an intrauterine device can remain in place that long nor do we know what effect oral contraceptives will have if ingested daily for that long. The study to which I referred previously shows that for many women 18 months was as long as they could take it.

Much Congressional attention has been focused, quite properly, on providing adequate information and family planning services to the poor. The stark fact today is that not only 6,000,000 poor women but all 43,000,000 fertile women in our country need much better birth control methods.

The best of our birth control methods today are woefully inadequate. This is not surprising. For many years the investigation of human reproduction and human fertility was a neglected science. Doctors and medical researchers through the years have been concerned with the care of pregnant women and the delivery of children. The biology of fertilization on the other hand was not a subject of much medical or scientific interest until the very recent past. Only in the last ten or fifteen years have substantial amounts of money been devoted to such investigation and this, in a large part, was done by pharmaceutical companies in their efforts to develop their "pills." The fact that so little has been done in this field of science is a great handicap to us now. We must continue to deliver services to the best of our ability but the cost of such delivery is far higher than would be the case if we had fully effective, fully

acceptable, self-administered methods of birth control. The costs and the inadequacies which we encounter in attempting to deliver services to the poor and the underprivileged in our own country, especially in the rural areas, are multiplied many times over in the developing countries.

Professor Richard J. Blandau, Professor of Biological Structure at the University of Washington, one of the outstanding scientists in the field of human reproduction, says, "Those of us who have explored basic reproductive mechanisms must confess that at this moment there is remarkably little complete information on any aspect of the reproductive processes in the human. We do not know how spermatozoa penetrate the cervical mucus. We have no specific knowledge by what means spermatozoa reach the site of fertilization. The means by which a spermatozoon penetrates the human egg is completely unknown." Several other critical steps in the reproductive process he describes as being unresolved or a complete mystery. What Professor Blandau expresses is not an opinion; it is an accepted fact among scientists working in the field. Dr. Ernst Knobil who heads the Department of Physiology of the University of Pittsburgh School of Medicine, puts it in these words, "Our current understanding of the regulation of reproduction is rudimentary indeed."

The only cheerful aspect of the long neglect of this vital field of science is that we know so little today that there is the greatest hope, even assurance, that we can indeed find very much better methods if we apply ourselves to the problem.

The work that has been done to date has brought us at least to the threshold of many promising leads. Work is of course progressing in improving the present methods of birth control but there are many wholly new avenues which promise very much better solutions to the problem. Investigation of brain hormones and the manner in which they control fertility give high expectation of a breakthrough. Immunology offers great promise. Especially in developing countries where vaccination and inoculation are already widely accepted, innoculation which would give long term immunity to fertilization would be highly acceptable. The study of female sex hormones resulted in the development of the pills in use today, more complete exploration could be highly productive. Work with the male sex hormones opens a wide and relatively unexplored field.

The role of the Federal Government in this type of investigation is a crucial one. Whereas the pill and the IUD were developed by private industry, there is little likelihood that development in the future will make much progress without government funding. An inoculation which is required only once or twice a year has small profit potential as compared to a pill which must be taken daily. The requirements for the safety testing of drugs and devices are much more stringent than they were in the fifties and early sixties. The increased costs of such testing coupled with the fact that the ideal product must be of very low cost makes research at company expense less and less likely.

The examples which I have cited of investigations which give promise of breakthroughs are but samples of the avenues which need to be explored in our search for far better methods of fertility control. Just what will be the result of these investigations one cannot tell today. They may well produce a

completely different and much more useable approach to the rhythm method. They will certainly in one form or another meet the requirement established by Dr. Joseph M. Beasley, the director of Family Health Incorporated, of New Orleans, one of the most successful family planning programs in the country. Dr. Beasley says, "At present there is no contraceptive method that is effective, safe, reversible, self-administered, and acceptable to all people." There is no question in my own mind nor do I find any question in the minds of leading scientists that methods which satisfy Dr. Beasley's requirement can and will be found, if we apply the effort which we should be applying. We are not applying it today.

The Family Planning Services and Population Research Act of 1970 authorized \$78 million for population research in Fiscal Year 1972. The budget which you are considering proposes \$37.7 million, less than half the authorized amount. A few days ago Dr. Andre Hellegers of Georgetown University appeared before this Committee and recommended that those figures be increased to \$53.8 million and gave a breakdown by category of how those funds should be used. Dr. Hellegers, who is an extremely able scientist in the field of gynecology, arrived at his figures after studying the research projects which are presently being funded by the National Institute of Child Health and Development and which will require continuing funding. He considered the projects which have been approved by the review boards, both internal and external, of the National Institutes of Health during the past year but remain unfunded for lack of appropriations, and he reviewed some of the new proposals which are available for future consideration. I reviewed these programs myself and the \$53.8 million budget, though far below the authorization and also far below what could be usefully spent this year, is a hardcore budget. It would support projects of high promise and would give a return as great, or greater, than can be expected in any other field of scientific research. I strongly support the recommendations made by Dr. Hellegers and ask that your Committee give them favorable consideration.

STATEMENT OF DR. EDWARD MELBY, JOHNS HOPKINS—NATIONAL
INSTITUTES OF HEALTH

NATIONAL INSTITUTES OF HEALTH : DIVISION OF RESEARCH RESOURCES,
ANIMAL RESOURCES

Senator MAGNUSON. We will hear from Dr. Edward Melby of Johns Hopkins.

Dr. MELBY. Thank you very much, Mr. Chairman, for the opportunity to appear before you this afternoon to discuss these matters.

I think they are basic and vital to the research effort in this country, and those of your committee have been so supportive in the past many years.

Senator Cotton, this morning you mentioned something about wishing the people from New Hampshire would be here to hear your thoughts, and I can only add I am from Vermont, so I am close by, so I can share some of your feelings about that area.

Senator COTTON. Thank you.

Dr. MELBY. The thing I would like to discuss with you today is something I have been personally involved in for the past many years, and something which is particularly important, I think, to mention to the entire research effort of this country, perhaps underestimated and misunderstood to some degree, but becoming increasingly important, and that is some of the basic research tools used in research of human health, and I refer specifically to the use of animal research, but I would like to bring your attention to things which I feel are extremely important.

I specifically am interested in the budget of the Division of Research Resources, and more specific to that aspect of the animal resources branch of the Division of Research Resources, there were very modest funds there in this year's budget.

Senator MAGNUSON. What is the budget item involved here?

Dr. MELBY. Less than \$5 million.

Senator MAGNUSON. What heading is it under?

I see it. Animal resources, research resources, the total there is \$66 million last year, and \$68 million-plus this year.

The budget recommendation, and when you break that down, animal resources, \$14,974,000 they have here, and the same amount for 1972.

Dr. MELBY. Yes, sir.

Senator MAGNUSON. All right. That is just for the record so we know what we are talking about.

Dr. MELBY. Yes. Now, this amount of money, which is, as you pointed out, stated for this year as last year, it goes for several purposes.

The major segment supports regional research centers, which are located around the country, one being in New England, and the rest being in the Middle West and west coast.

The major portion of those funds do go to support these independent research programs in the use of nonhuman primates for various research purposes.

The balance of these funds, which are less than \$5 million, are generally supported, if you will, to the entire research effort, supported through the NIH.

The information available from the NIH would indicate that over half of all NIH grants involve the use of animals, and more specifically, about \$50 million are spent from these funds for the purchase and maintenance of these animals.

Just in this context alone, a supportive program of less than \$5 million to support \$50 million may sound on the surface inadequate, at least in my view, but I would like to point out that an animal, these animals are entirely different than you and I would occasionally assume as being suitable for research.

These are specialized animals, which have been specifically bred, raised and developed over many years for specific purposes.

Furthermore, they must be cared for and kept and maintained in an environment in which we eliminate as much as possible variables in research.

I have pointed out on many occasions that these animals are very vital research tools, and we must have quality animals, and we must have people and staff to make sure this quality is standardized, so therefore unless quality is maintained, and this has been pretty much underwritten and supported through the efforts of the animal resources grants, and really, what is in jeopardy, all of this data, which is taken from the use of these animals and research.

Now, why do we use animals, and I will not belabor the point, except to point out the importance of these is models of human disease.

We can simply not take many of the problems in man, and either manipulate these, or attempt to study them in ways in which we have to rely on animals, and, therefore, the importance of trying to identify, trying to develop insight into the problems of these animals, it is extremely important they be unraveled to the basic problems of man.

The less than \$5 million I am speaking about now, that segment unrelated to primate research centers of animal resources, goes to support affiliated activities.

These include training of very specialized people. We did not have this 10 or 20 years ago. This is really a new field. The development and the making available of certain kinds of equipment, of facilities, and so forth, this is quite new.

Again, an extremely modest amount for what is actually needed, in 1968 the National Research Council, National Academy of Science, conducted a nationwide survey of institutions using research animals and to inquire as to what their specific needs were, and that study indicated at that time, using 1968 figures, we were in need of some \$191 million to just bring things to where they should be.

Now, I would expect, with inflation, and these other pressures, this is even more now, but these are actually very staggering sums.

I get back to some other aspects of these problems, as you perhaps are aware of the various pressures placed upon us, at both the Federal sector and also locally, to make sure the manner in which we handle or care for research animals meets the standards which have been established by the public through the generation of various laws.

We now have at least two Federal laws on the books to which we must comply, but more is perhaps the review which has been brought about, the recognition on the part of the scientists—

Senator MAGNUSON. You are not talking about primates?

Dr. MELBY. No, I am talking about all animal research.

There are two Federal laws now in effect that affect us.

Senator MAGNUSON. I know. One of them was mine.

Dr. MELBY. That is correct.

I think the real issue, if you are using animals, you have to know what it is, how it is going to respond, you can do some in some predictable manner, control the environment, and this is what we are really after.

We are in a transition period of trying to develop resources, personnel, the knowledge really to be able to develop and use these animals in a meaningful way.

I am not saying that much of the research has been done in the past, has been productive at a certain level, or that what has been done has been nullified, but what I am saying is that as we get into areas that are much more sophisticated, much more complex, we just have to have a quality predictable animal, maintain an environment which we can control, maintained by people who understand the biology and be supportive right across the board.

Senator MAGNUSON. The greater the knowledge, the more humane the whole thing becomes.

Dr. MELBY. Absolutely, and it is a little different raising them yourself for purpose of certain experiments and carrying it on through and even getting a better type for this sort of thing than going out and picking up some animal.

Senator MAGNUSON. Most of them are getting to be inhouse, are they not?

Dr. MELBY. Either in-house, or through very sophisticated commercial enterprises, many of them are traded on the New York Stock Exchange, it is that big.

Just as an example, to show you how this field is changing, 10 years ago there was no program in this area. there were no people specifically looking at this particular area.

Our staff now exceeds 18 professional people in this area. We are looking at this particular problem, and we are trying to work with research problems in man using the information available in animals.

I think it is an extremely important area. In terms of the development of the division of the budget, for the division of research facilities, how they arrive at the figures in this particular year, I am not sure how they went about it.

I do know through work with various activities, the real need is much greater, and I would hope in the next few years, in the wisdom of the NIH, and also through this committee, and with the Senate and House, we would like them all to recognize these problems, and that you either reapportion or redirect funds so that you make some meaningful contributions in this area.

Again, I get back to the vital area, and vital impact of all of the research efforts, and—

Senator MAGNUSON. Now, Doctor, even the budget says this, the importance of animal resources reflected, they are talking about the \$14 million, is reflected in the fact that over 57 percent of NIH supported research grants require the use of animals, and then they mention the seven primate centers established beginning in 1960, and then they go on to say, accomplishments in 1971, they say 71 animal resources received support, including the primate centers.

The laboratory animal and viral science program will provide for 31 projects for special colonies, or development of animal disease models, and 33 projects for improvement of efficiency in the institutional programs. It is anticipated the program, the \$14 million, will support approximately 71 animal resources.

This is what they say.

Now, you are suggesting that we add how much to that?

Dr. MELBY. Well, I am suggesting, first of all, that you do everything possible to support this request.

Senator MAGNUSON. This request to begin with is what?

Dr. MELBY. This is really barely minimum. What I am saying, from my knowledge of what is going on, and the needs of this country is far greater, and you are talking about the 70 or so odd animal resources——

Senator MAGNUSON. This is the budget's report, not mine.

Dr. MELBY. I realize that. I did not have anything obviously to do with the preparation of that budget, and I am here today to urge we support it in its totality, because it is desperately needed to maintain a level of competence in this country.

Senator MAGNUSON. All right.

Thank you. We will put your full statement in the record.

Dr. MELBY. Thank you, sir.

(The statement follows:)

Mr. Chairman and Members of the Committee:

My name is Edward C. Melby, Jr. I am Associate Professor and Director of the Division of Laboratory Animal Medicine at The Johns Hopkins University School of Medicine. I am the immediate Past President of the American Association for Laboratory Animal Science (AALAS) and currently serve as Chairman of the Council on Accreditation of the American Association for Accreditation of Laboratory Animal Care (AAALAC). I am also a Diplomate of the American College of Laboratory Animal Medicine, a speciality board established by the American Veterinary Medical Association, and serve as a consultant or member of various advisory committees to the Veterans Administration, the Maryland State Department of Health, the Institute of Laboratory Animal Resources of the National Research Council - National Academy of Sciences and to the Advisory Council of the Division of Research Resources and to the Institute of Child Health and Development of the National Institutes of Health in matters relating to the use of experimental animals in biomedical research.

I appear before this group as a spokesman both for the AALAS and AAALAC which are national associations whose fundamental concerns lie with the scientific development and use of experimental animals in all phases of biomedical education and research. AALAS is an organization of over 3,000 individual scientists, supporting personnel and institutions which, for the past two decades, has led the way in the development of laboratory animal science in this Country. The Association is vitally concerned with all facets of laboratory animal husbandry, care and use including the sponsoring of specialized educational programs which have created completely new technical job opportunities for people from various walks of life.

The AAALAC program is an effort on the part of the scientific community to encourage optimal care for laboratory animals and to provide a mechanism of self regulation which will assure that laboratory animals are maintained under the best possible conditions, thereby improving the welfare and health of laboratory animals which are vital to our efforts in meeting the health needs of the people of this country. I have personally been active in the AAALAC program for the past five years and, therefore, have first hand knowledge of the important role AAALAC has played in improving the health and welfare of laboratory animals. I know of no other single activity or program which has had greater impact on the laboratory animal resources of this Country than the AAALAC program. It is important to recognize that the criteria used by The AAALAC for accreditation are the standards promulgated by the U. S. Public Health Service in its publication #1024 "Guide for Laboratory Animal Facilities and Care". Thus, it utilizes the best scientific knowledge available in establishing appropriate guidelines for the care of animals and development of animal resources. In round figures perhaps 20% of the total number of research institutions in this country have participated in the program to date. It is important to recognize, however, that those institutions participating in the AAALAC program perhaps take care of one-third to one-half of the total number of animals used in research and education in this country today.

Although I have presented a brief overview of the programs and interests of the AAALAC and AALAS organizations, in addition I greatly appreciate the privilege of appearing before you today as an informed private citizen, deeply concerned about the critical needs for research animal resources in the various biomedical teaching and research institutions in this country. The proposed budget for the National Institutes of Health under program plans for 1972 of

the Division of Research Resources includes an item of \$4,474,000 requested for support of animal resources. A portion of these funds will support the needs of special colonies of animals which have exhibited the potential of developing into valuable research and educational resources or for the development of animal models of human disease which can be used to explore unresolved problems in human health. The remainder of these funds will be used to develop and support diagnostic and investigative programs in several institutions which support animal resources, minor renovations to animal facilities, the purchase of needed equipment and other similar activities. Through personal experience with these programs I can attest to their great importance for both improvement of animal health and animal resources as well as in their relation to research of direct importance to human health. As an example, one of our research programs in cancer was suddenly faced with an unusual expression of disease in their animal colonies. Animals were dying of causes which they felt were unrelated to their experiments. The animal resource diagnostic laboratories at Johns Hopkins carefully explored the problem and, after investigation it was found that the procedures being used by this cancer research team had unknowingly permitted an unrecognized and heretofore undiscovered animal virus to express itself. Now this disease was not only interfering with the cancer research program but its recognition provided an entirely new avenue for exploration in research on latent diseases of the nervous system in both animals and man. Subsequent work with this virus has made it possible to not only exclude it from this cancer research program where it was causing significant interference with their research but it has been possible to develop significant new information on diseases which are of great interest to man. The diagnostic and investigative laboratory at Johns Hopkins is one of the programs supported by the Division of Research Resources. Were it not for the availability of this laboratory this particular problem would have continued to cause inter-

ference with a major cancer research program as well as leaving unknown its potential usefulness in the study of the effects of viruses on the nervous system of both man and animals. I might state that there are several other similar examples which have come out of this laboratory since its development a few short years ago. In a similar manner, the central primate resource at the Johns Hopkins Medical School has been developed and supported through funds from the Division of Research Resources. This primate colony serves the entire medical institutions and is responsible for the receiving, quarantine and conditioning, specialized breeding programs in primates and other general research support activities. All the research programs involving the use of primates at Johns Hopkins are dependent upon this colony resource. Additionally, studies emanating from this colony have cited the importance of the development of genetic changes in bacteria which have direct application to human health. We have been able to demonstrate the development of what is known as Resistance Transfer Factor in bacteria which are residents of the intestinal tract of certain animals which cause great difficulties in human intestinal diseases. This study demonstrated an excellent animal model for a very difficult problem in human health. Several other investigations have been reported from this colony which, without the development of such a program by the Division of Research Resources would never have been possible.

In addition to the above examples, program plans for the Division of Research Resources in support of fellowships which provide highly specialized training for professional personnel directly involved in animal resources calls for an expenditure of \$126,000. Training grants which provide postdoctoral training in laboratory animal medicine and pathology have requested an additional \$352,000 in support of eight active programs. These postdoctoral training programs are intended to prepare individuals to provide very specialized

professional care for the many species of laboratory animals utilized in research, to manage central animal resources and to provide special assistance to investigators in matters pertaining to laboratory animal biology and the understanding of research methods. The rapid progress which has been made in developing strong, central animal resource programs and the tremendous strides which have been taken to assure the use of quality animals in research may be attributed, in large measure, to the influence of these training programs and certainly the overall support provided through the Division of Research Resources and its predecessors within the National Institutes of Health. As an individual I have been professionally involved in laboratory animal medicine and science for the past ten years. Many of these activities have permitted me to gain careful insight into the complex problems facing animal resources and the manner in which they are addressed. I would like to state for the record that I am tremendously impressed with the activities carried out by the Division of Research Resources and believe the efforts of this Division have made an immeasurable contribution to the biomedical research activities of this Country.

The tremendous importance of animals to the health related research efforts of this Country is often unappreciated by the general public. However, members of this Committee are aware of the important role animals have played in our monumental success in the control of poliomyelitis, in the development of organ transplantation and surgical procedures which are now very commonplace. Likewise, the unfolding of the Thalidomide story emphasized the importance of the use of animals in drug testing whereby it was not until several different species of animals were subjected to this drug that the true dangers it held

for man were recognized. Through greater knowledge of the basic biological behavior of heart disease and cancer in animals we have greater understanding of these conditions in man. The groundwork laid in identifying the various viral causes of cancer in animals should permit major breakthroughs in the control of that dreaded disease in man within the next several years.

In support of biomedical research activities over 40,000,000 animals are used each year according to a survey conducted by the National Academy of Sciences. Over half of the biomedical research effort in the NIH grant eligible institutions is dependent on the use of animals. Such institutions spend over \$50,000,000 per year for the purchase and maintenance of these animals. I believe it to be a logical assumption that if these grant eligible institutions spend \$50,000,000 a year just for the purchase and maintenance of these animals, then the support for the total resource component requested by the Division of Research Resources for 1971-1972 of \$4,474,000 is justifiable on that basis alone.

It is important to recognize, however, that the \$50,000,000 spent for these animals and their care is only the beginning of the total cost picture. In certain instances, what started out to be a \$5 animal may, in a short time, be worth \$10,000 or more if one considers the time and effort of the scientific and technical staff, supporting laboratories, instrumentation and procedures used in the studies in which this animal plays a vital role. These costs are not clearly recognized when estimating the true impact and importance of animal resources as they relate to the entire biomedical research efforts sponsored by the Federal Government. If we accept the fact that over half of the total NIH supported research requires the use of animals then we should consider that

the program developed by the Division of Research Resources is really attempting to buttress more than half of the entire research effort of the National Institutes of Health. Taken in this context, the \$4,474,000 requested for program plans in 1972 are, in my opinion, far too small.

I am not unmindful of the fact that there have been strenuous efforts to limit, if not abolish, the use of animals in research. With the development of sophisticated computer programs, tissue culture and other newer methods it has become popular for many people to believe that animals are no longer required in research or for use in industrial purposes. Actually, nothing is further from the truth. I have already cited the problems with the Thalidomide story, in which it was not until several species of animals had been used to test the drug that the true picture unfolded with regard to the damage this drug could do to unborn infants. In a similar manner, it is impossible to develop a computer program to answer specific questions without knowing the questions to be asked. At our present state of knowledge it would be unthinkable to do without the use of animals in biomedical research. At the same time, we must be responsive to the wishes of the public as expressed in appropriate legislation. Just last year, the Congress enacted Public Law 91-579, referred to as the Animal Welfare Act of 1970, in response to this need. From another viewpoint, as research has become more complicated we are increasingly recognizing the need for better definition and control of variables in research programs. All of these require greater attention to all facets of our studies requiring the use of animals. We simply cannot perform the type of research required in the 1970's with the research tools of the 1920's and 1930's. In 1968, the National Academy of Sciences conducted a comprehensive survey of laboratory

animal facilities. This study indicated that some \$190,000,000 were required to renovate, construct and re-equip the animal resources of this country just to meet current requirements. And bear in mind, gentlemen, that these were 1968 figures.

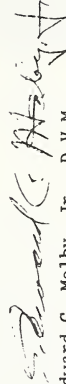
Again, I come before you today both as a concerned public citizen as well as a spokesman for the 3,200 members of the American Association for Laboratory Animal Science. I believe I am knowledgeable of many of the urgent needs of the animal resources in this country. In my view, the proposed budget of the Division of Research Resources of the NIH must be supported in its entirety if it is to even attempt to begin to address the real needs of the animal resources of this country. I believe I have made it amply clear that the sum of money requested will fall far short in meeting these needs. However, I would also like to attest to the fact that the expenditures made through the program sponsored by the Division of Research Resources have been extremely important and have resulted in a far greater influence on the total research productivity of the NIH than is generally recognized. Although the proposed budget of the National Institutes of Health does not include funds to assist in alleviating the critical needs for improvement of our animal resource facilities I strongly recommend that this Committee support the current program of the Animal Resources Branch of the Division of Research Resources since these are vital and necessary to continue other programs of crucial importance to the total research efforts of the NIH. Additional funds are urgently required to assist in meeting the needs for animal facilities improvement as established by the 1968 survey on laboratory animal facilities conducted by the National Academy of Sciences and I hope that such funds will be made available at the earliest possible moment. This survey indicated that some twenty-eight to thirty million dollars are required for remodeling and renovating

existing facilities and an additional thirteen million is required for equipment and cage replacement. Please note that these figures do not provide for expansion or construction of new facilities. Thus we need in excess of \$40,000,000 now just to keep our heads above water. Although not specifically requested in this budget, I sincerely hope that this problem can be addressed in a meaningful way beginning next year.

I very much appreciate the privilege of appearing before you today.

I hope that the comments I have presented will convey the importance of the animal resources program and the urgent need for continuing this support. These programs are essential parts of this Nations research efforts as related to human health.

Thank you very much.


Edward C. Melby, Jr., D.V.M.

STATEMENTS OF MRS. SYLVIA N. RACHLIN, EXECUTIVE VICE PRESIDENT,
MYOPIA INTERNATIONAL RESEARCH FOUNDATION, INC., AND THOMAS J.
PERRY, SERVICE EMPLOYEES INTERNATIONAL UNION, AFL-CIO

Senator MAGNUSON. We have received a statement from Mrs. Sylvia Rachlin, executive vice president of the Myopia International Research Foundation, Inc. Mrs. Rachlin is recovering from a bout with flu and could not be with us today. The statement will be entered in the record, however, along with Mr. Perry's attached statement.

(The statement and attachment follow:)

Myopia International Research Foundation, Inc.

Chartered 1963

Cable address:
MYOPIAINTL

Room 705
415 Lexington Avenue
New York, N. Y. 10017

July 7, 1971

Phones: 682-2290
867-1888



M
I
R
F

BOARD OF TRUSTEES

President
Alfred Stein

Chairman
Thomas J. Perry

Executive Vice President
Mrs. Sylvia N. Rochlin

Co-Treasurers
Rabbi Dr. Arthur T. Buch
Rt. Rev. Msgr. George F. McKinney
Reverend Robert C. Schrock

Secretary
Lucienne R. Ragonnet

Eather R. Hetherington
Paul Jennings
Irving S. Manheimer
Abraham Rochlin
Armistead W. Sapp, Jr.
George I. Silberberg
Mrs. Marcel Wallace
Barbara Ziegler

Sponsors
Mrs. W. Park Armstrong, Jr.
Mrs. James J. Comarford
Arthur F. X. Henriksen, Esq.
Mrs. Edna Carroll Ingrassia
Hy Joffe
Myron McNaughton
Hon. Louis A. Pagnucco
Emma Del Portridge
Mrs. James Perlow
Murray H. Puterman
George Shelsky
Mrs. Donald K. Stevenson
Mrs. Dorothy Strayer-Priemer
Hughy L. Teetelli
Al Unger

Auxiliary
Beatrice C. Schiavone
Chairman

Eye care for Americans afflicted with myopia, commonly known as nearsightedness, is at least a \$1 billion-a-year industry.

This estimate comes from Dr. Mary C. Fletcher of Houston, Texas, one of the relatively small band of specialists studying myopia. Dr. Fletcher has concentrated on school children, hoping that a breakthrough in treatment at an early age might obviate more serious adult problems; and she estimates that myopes' problems, based on one eye examination and one prescription for glasses yearly - a highly conservative basis since thousands of cases involve much more extensive tests and changes of lens - cost at least \$1 billion annually.

The Food and Drug Administration has recently referred to "100,000,000 Americans who wear eyeglasses." This would bring the cost for eye care well beyond the billion dollar mark. This statistic is particularly disturbing to the myope who feels he is regarded more as consumer than as patient.

Since its incorporation in 1963, the MYOPIA INTERNATIONAL RESEARCH FOUNDATION has sought to further interest in comprehensive, interdisciplinary research into the causes, treatment, and prevention of nearsightedness. More immediately, it seeks to save the eyesight of children afflicted with progressive, pathological myopia for which there is no known cure.

The Foundation's Exhibits at the Annual Conventions of the American Academy of Ophthalmology and Otolaryngology and the quadrennial sessions of the International Congress of Ophthalmology have attracted the attention of thousands of eminent doctors who have endorsed our Program and asked to be involved.

The Voice of America has considered this Program of such significance that it has twice broadcast its details to all nations.

In order to improve the channels of communication among doctors interested in myopia research throughout the world, the MYOPIA INTERNATIONAL RESEARCH FOUNDATION has published and distributed Myopia Research Papers without charge to interested doctors throughout the world.

The MYOPIA INTERNATIONAL RESEARCH FOUNDATION is idealistic in its operation. No money whatsoever is spent on any administrative salaries or professional fund raisers.

Within the United States, this Foundation seeks the establishment of a National Myopia Center with the following three-fold structure:

1. Myopia Research Projects in the National Eye Institute, National Institutes of Health -
 - a) Establishment of analytical and statistical procedures by the Biometrics Branch of the National Eye Institute,
 - b) Grants to the National Eye Institute enabling Myopia Research Projects and establishment of analytical and statistical procedures.
2. A Myopia Service Program under the National Eye Institute -
 - a) Collaborative study permitting the creation and development of service programs for myopes throughout the United States, and a standardization of records and reporting forms. Through their personal doctors, myopes - young and old - would participate by submitting comprehensive cumulative records to the National Myopia Center for continued analysis by research experts.
 - b) Grants enabling Myopia Service Programs.
3. The National Registries of Myopia Pathology, a myopia eye study bank, should be developed under the United States Public Health Service. All universities, hospitals, other laboratories involved in eye research, and eye banks throughout the United States could participate in coordinated clinical research. Participating laboratories would receive eyes of myopes and their families which have been donated for the purpose of research into the pathology of myopia from its incipience through its advanced stages. Findings would be correlated with other research. This plan for the National Registries of Myopia Pathology, originated by the MYOPIA INTERNATIONAL RESEARCH FOUNDATION, has received the enthusiastic endorsement of many individuals and organizations across the nation.

A National Myopia Center structured upon this three-phase program would stimulate nationwide interest and participation by myopes and their families and friends in research under public and private health auspices.

It is a recognized fact that over one-third of the population is near-sighted. Countless adults have suffered loss of employment and become financial burdens to their families and the community because of pathological or degenerative changes in myopia. In addition, the Federal Treasury suffers a loss in revenue through exemptions for legal blindness, reduced earnings, and increased medical deductions for eye care.

Members of this Honorable Committee: Fully cognizant of the reasons for current retrenchment, the professional consensus is that myopia problems require much applied research. By mail and telephone the MYOPIA INTERNATIONAL RESEARCH FOUNDATION receives daily appeals from myopes or their relatives for that answer which is not yet known to medical science. In their behalf we beg your earnest consideration and help.

Respectfully submitted

Sylvia N. Rachlin

(Mrs.) Sylvia N. Rachlin, Executive Vice President
MYOPIA INTERNATIONAL RESEARCH FOUNDATION, INC.
415 Lexington Avenue
New York, New York 10017

SMR:B

Myopia International Research Foundation, Inc.

MIRF

Cable address:
MYOPIAINTL

Chartered 1963

Room 705
415 Lexington Avenue
New York, N. Y. 10017
Phones: 682-2290
867-1888

 36

BOARD OF TRUSTEES

President
Alfred Stein

Chairman
Thomas J. Perry

Executive Vice President
Mrs. Sylvia N. Rachlin

Co-Treasurers
Rabbi Dr. Arthur T. Buch
Rt. Rev. Msgr. George F. McKinney
Reverend Robert C. Schrock

Secretary
Lucienne R. Ragonnet

Esther R. Hetherington
Paul Jannings
Irving S. Monheim
Abraham Rachlin
Armistead W. Sopp, Jr.
George I. Silberberg
Mrs. Marcel Wallace
Borboro Ziegler

Sponsors
Mrs. W. Park Armstrong, Jr.
Mrs. James J. Comerford
Arthur F. X. Henriksen, Esq.
Mrs. Edna Carroll Ingrassio
Hy Joffe
Myron McNawn
Hon. Louis A. Pagnucco
Emma Dol Partridge
Mrs. James Parlow
Murray H. Puterman
George Shelsky
Mrs. Donald K. Stevenson
Mrs. Dorothy Stroyer-Priemer
Hughy L. Teatelli
Al Unger

Auxiliary
Beatrice C. Schiovone
Chairman

STATEMENT OF

**MR. THOMAS J. PERRY, INTERNATIONAL REPRESENTATIVE
SERVICE EMPLOYEES INTERNATIONAL UNION AFL-CIO
and**

PRESIDENT OF LOCAL 32J-SERVICE EMPLOYEES INTERNATIONAL UNION AFL-CIO

MR. CHAIRMAN AND MEMBERS OF THE SENATE SUBCOMMITTEE ON APPROPRIATIONS FOR LABOR, HEALTH, EDUCATION AND WELFARE:

As a representative of Labor and Chairman of the Board of Trustees of the MYOPIA INTERNATIONAL RESEARCH FOUNDATION, I can speak from personal knowledge of the significance and importance of the Foundation's Program for workers everywhere. From the many thousands of people who visit the eye clinics of Labor Health Centers, one can readily appreciate the additional thousands who stand to benefit from favorable action by your Committee upon the recommendations of the MYOPIA INTERNATIONAL RESEARCH FOUNDATION.

This Foundation is presently engaged in the promotion of communication among all those involved in myopia research - from the patient seeking relief to the doctor carrying on clinical studies and experimentation.

Through the free publication and dissemination of clinical reports and observations to doctors in all parts of the world, researchers have been informed of corroborative materials for work in process and have indicated areas for further investigation in myopia research.

The ever-increasing numbers of doctors here and abroad who have turned to the MYOPIA INTERNATIONAL RESEARCH FOUNDATION as a coordinating agency is, itself, recognition of the merits of and need for its program. This promotion of cooperation and goodwill among eye doctors throughout the world is in close accord with the aim of American Labor to bind together the peoples of the world through joint efforts for their common good.

Hence, Gentlemen, Labor joins with the MYOPIA INTERNATIONAL RESEARCH FOUNDATION in imploring your interest and support in the fight against ravages of myopia.

Myopia International Research Foundation, Inc.

**M
I
R
F**

Cable address:
MYOPIAINTL

Chartered 1963

Room 705
415 Lexington Avenue
New York, N. Y. 10017

Phones: 682-2290
867-1888

PERTINENT FACTS



BOARD OF TRUSTEES

President
Alfred Stein

Chairman
Thomas J. Perry

Executive Vice President
Mrs. Sylvia N. Rachlin

Co-Treasurers
Rabbi Dr. Arthur T. Buch
Rt. Rev. Msgr. George F. McKinney
Reverend Robert C. Schrock

Secretary
Lucienne R. Ragannel

Esther R. Hetherington
Paul Jennings
Irving S. Manheimer
Abraham Rachlin
Arnold W. Sapp, Jr.
George I. Silberberg
Mrs. Marcel Wallace
Barbara Ziegler

Sponsors
Mrs. W. Park Armstrong, Jr.
Mrs. James J. Comerford
Arthur F. X. Henriksen, Esq.
Mrs. Edna Carroll Ingrassia
Hy Jaffe
Myron McNawn
Hon. Louis A. Pagnucco
Emma Dal Partridge
Mrs. James Parlaw
Murray H. Puterman
George Shelsky
Mrs. Donald K. Stevenson
Mrs. Dorothy Strayer-Priemer
Hughy L. Teetelli
Al Unger

Auxiliary
Beatrice C. Schiavone
Chairman

The Myopia International Research Foundation, Inc. launched the first comprehensive, interdisciplinary research program in the United States into the causes, treatment and prevention of nearsightedness.

Our immediate goal is to save the eyesight of more than one million American children (besides millions around the world) who are doomed to blindness because of progressive, pathological myopia for which there is no known cure. This, we are doing with the cooperation of doctors in the United States and elsewhere throughout the world.

The Myopia International Research Foundation sponsored the First International Conference on Myopia in 1964.

Since 1965 we have petitioned the Congress of the United States for the establishment of a National Myopia Center under theegis of the U.S. Public Health Service. Each year we have appeared before Subcommittees of the House of Representatives and Senate.

The Myopia International Research Foundation has been invited to exhibit at each annual convention of the American Academy of Ophthalmology and Otolaryngology since 1965. Each year an increasing number of ophthalmologists has become interested in our Program.

By invitation, The Myopia International Research Foundation has had exhibits at the International Congress of Ophthalmology in Germany (1966) and in Mexico (1970). These presentations were enthusiastically attended by eminent doctors from all continents, who applauded our Program and asked to be involved.

The Voice of America has twice broadcast details of our Program to all nations.

Through gifts of printing, Myopia Research Papers are published and distributed without charge to interested doctors in all nations.

The Myopia International Research Foundation is idealistic in its operation. No money whatsoever is spent on any administrative salaries or professional fund raisers.

Our intensive efforts continue daily to help widen the channels of communication among doctors interested in myopia research in all nations.

STATEMENT OF DR. GARY FILERMAN, PRESIDENT OF THE FEDERATION OF ASSOCIATIONS OF SCHOOLS OF THE HEALTH PROFESSIONS

HEALTH MANPOWER

Senator MAGNUSON. We will hear from Dr. Gary Filerman, president of the Federation of Associations of Schools of the Health Professions.

Dr. FILERMAN. Thank you very much, Mr. Chairman. We appreciate the opportunity, particularly given the time constraints of the afternoon, to testify this afternoon.

My colleagues are Dr. Oliver and Dr. Blimon. I represent the Federation of Associations of Schools of the Health Professions, and I am the executive director of the Association of University Program in Hospital Administration.

We are actually here representing the Associations of Schools, and that is a permanent professional organization of all of the health professions of the country which is concerned with all of the issues facing the health professions collectively, and of course among them, support for the health professions and education.

Now, the shortages of health manpower that prevail in the United States are well documented. As President Nixon stated in his health message to the Congress in February:

Americans who live in remote rural areas or in urban poverty neighborhoods often have special difficulty obtaining adequate medical care. On the average, there is now one doctor for every 630 persons in America. But in over one-third of our counties the number of doctors per capita is less than one-third that high. In over 130 counties, comprising over eight percent of our land area, there are no private doctors at all—and the number of such counties is growing.

A similar problem exists in our center cities. In some areas of New York, for example, there is one private doctor for every 200 persons but in other areas the ratio is one to 12,000. Chicago's inner city neighborhoods have some 1,700 fewer physicians today than they had ten years ago.

The problem is the same in the case of other categories of health manpower. These shortages are a contributing factor to the inferior health status of our citizens as measured by such indices as male life expectancy—the United States ranks 18th among the nations of the world, female life expectancy—we rate 11th, and infant mortality—we rank 13th.

In addition, the impact of the shortages will be compounded if we continue to provide financial assistance for health care services in the absence of an adequate investment for the training of health manpower. Earlier this year the House of Representatives extended medicare coverage to the disabled under the Social Security and Railroad Retirement programs. Both the Senate and House will consider this year the many national health insurance bills that have been introduced.

HEALTH PROFESSIONS

The Health Professions Educational Assistance Act authorizes financial assistance for the training of physicians, dentists, optometrists, pharmacists, podiatrists, veterinarians and professional public health personnel.

The latter are eligible only for construction assistance under this legislation but the other disciplines are also eligible for institutional support, student loan and scholarship funds.

The backlog in approved construction applications amounts to \$600 million. Since many qualified candidates for health professions schools cannot now be admitted due to a lack of facilities it is essential that construction be encouraged.

Institutional support is equally important since more than one-half of the medical schools have been determined eligible for financial distress grants. Two dental schools have been closed recently because of financial difficulties.

If the health professions schools are to continue and expand their programs for the recruitment of disadvantaged students it is essential that the student loans and scholarships be fully funded.

Since the existing authorizations for the Health Professions Act expired on June 30, 1971, there are no specific levels of appropriations authorized at this time.

H.R. 8629, however, has been approved by the House of Representatives and the Senate Committee on Labor and Public Welfare has approved S. 943.

The Federation believes that either bill would provide adequately for the training of health manpower. We support, therefore, as a minimum the \$754.6 million that is authorized to be appropriated in 1972 for the Health Professions Act, according to H.R. 8629.

NURSE TRAINING

The same situation prevails in the case of the Nurse Training Act. That act also expired on June 30, 1971 and there are at present no authorizations for appropriations.

The Federation supports the funding levels of H.R. 8630 that has been approved by the House of Representatives. That measure would authorize \$206 million to be appropriated in 1972 for nurse training.

The extent of the shortage of nurses is critical at this time and will continue to be so until our training facilities and enrollments are sharply expanded.

There are now some 700,000 nurses in active practice but 150,000 more are needed. By 1980, it is estimated that more than 1 million nurses will be needed.

ALLIED HEALTH PERSONNEL

The shortage of allied health personnel in 1970 was estimated at 250,000 by the Public Health Service. Some of the areas in which the shortages are most severe are laboratory personnel, radiologic personnel and dental auxiliaries.

The shortage by 1980 is expected to total 430,000 workers. The manpower in the allied health professions contribute in many ways to providing adequate health care services to those afflicted with illness and injuries. It has been demonstrated that allied health personnel can increase dramatically the productivity of physicians and dentists.

Despite the shortages of allied health personnel the Department of

HEW has requested only \$26.5 million of the \$110 million that is authorized to be appropriated in 1972.

No funds are requested for construction, student loans or scholarships. The Federation urges that the full authorization be appropriated.

PUBLIC HEALTH TRAINING

Despite the fact that President Nixon made mention of the importance of preventive medicine in his health message, the administration has requested less than one-half of the amounts authorized in 1972 for public health training.

As he stated:

Because we pay so little attention to preventing disease and treating it early, too many people get sick and need intensive treatment.

The primary source of Federal support of public health training are sections 306, 309(a) and 309(c) of the Public Health Service Act.

The authorizations for 1972 for these traineeships (306), training grants (309(a)) and formula institutional support (309(c)) total \$43 million in 1972.

The 1972 budget, however, requests only \$17,971,000, the same level as last year.

Thus, not even cost-of-living increases are requested even though teaching costs have increased.

The level of support at individual schools will decline since new schools of public health have been established in recent years in Texas, Washington and Illinois. The Federation recommends that a minimum of \$26 million be appropriated for public health training in 1972.

CONCLUSION

In concluding, I would like to also request that additional funds be appropriated for the general research support grant program of the National Institutes of Health.

Since teaching and research are complementary components of health manpower training, the schools represented by the Federation are vitally interested in this valuable program of NIH.

For 1972, therefore, we recommend that at least the 1971 level of funding be maintained for general research support grants.

The 1971 appropriation was \$60.7 million; the request for 1972 is \$49.2 million.

Senator MAGNUSON. Now, with regard to the Nurse Training Act, there is no request, because it had not been authorized, but the authorization, you say, what is the total authorization?

Dr. FILERMAN. In the House bill, it is \$754.6 million.

Senator MAGNUSON. And in the Senate bill?

Dr. FILERMAN. It is higher.

Senator MAGNUSON. And that will have to go to conference, and it will probably end up somewhere in between. That is what usually happens, so you cannot expect full funding.

Dr. FILERMAN. What the administration has been recommending is about half of the total in the House bill.

Senator MAGNUSON. So if there is a budget request, if this conference comes back before we mark up the bill, the budget request will

probably be way under the \$800 million, and we will have to look at that.

You are lucky if they recommend 40 percent, and this is a very important field, but I do not think you should be disillusioned or anybody else by the fact you do not get full funding.

Dr. FILERMAN. No, but we need to make a case for it at this point of history.

Senator MAGNUSON. Everybody makes a case for full funding, and if you adhere to full funding, there is no use having an Appropriations Committee.

What would we be here for?

Dr. FILERMAN. You can endorse full funding.

Senator MAGNUSON. Oh, well, but there should be reasonable funding, because the legislative committees are not responsible for the payment of the money, and they have a tendency, if they had at any time to appropriate this money, it would not be as high as it is, I will tell you that.

I have been around here long enough to know that.

Dr. FILERMAN. At the same time, I have been impressed by the thorough need there. In that case I hope it will not be close to 40 percent.

Senator MAGNUSON. I hope you are correct, but we are getting to the point of vetoes, and we are getting to the point of freezing the money, and then we get accused of being the big spenders.

Senator Cotton will continue with you, and I will go over to the floor to vote, and then I am going to have to remain there, and we will recess until tomorrow at 10.

Dr. FILERMAN. I think the critical issue in the general financial picture for health manpower at this juncture in history is the potential advent of some sort of national health insurance program, which if the experience of medicare and medicaid is any indication, it is going to create a immense demand for the services of new health manpower individuals and classifications, and the Federation has been attempting to come to grips with that issue in establishing its recommendation for the funding of health manpower training.

I would like to add that the Federation is the agency which represents all of the health professions about which this committee is confronted with, and that these are problems that are generic to developing a long-run funding support program for health manpower in this country, and those two major problems are, one, the cost of health education.

We have discovered in our negotiations among the health professions in attempting to determine what are the appropriate formulas for support of health education, that actually very limited data are available on the real costs of educating the various health professions.

We believe that the Congress and the public and health schools all need to have that kind of information to make intelligent decisions about Federal public policy and support.

Somewhere in HEW there should be support specifically earmarked for the support of studies into the cost of health education.

There is also a need for studies of the effective use of health manpower.

I think we recognize that all of the legislation that we have talked about here today addresses itself to established health professions and established patterns of the use of health professions, and within the long run, innovation and changes in the use of health personnel are going to be necessary, if the country will be able to deliver effective health care.

Support is needed now under some agency, for studies that will help Congress and the schools make trade-off decisions about how to invest public and private money in variously developing health professions.

I do not have anything more to add. We would be happy to answer any questions that you may have.

Well, let me add that S. 934 does provide for a cost study on health education to be conducted by the National Academy of Science. I think the Congress would like to see this feature retained.

Senator COTTON. I was aware of that, and of course this bill expected to pass this afternoon is an authorization bill. If the House does not pass a similar bill, or this one, there will be nothing in the budget. There will be nothing in the appropriations bill when it comes to us from the House. We will have to act on it, by putting it back in, and send it to conference.

In the bill also are some bonuses to medical schools for additional students. This committee is keenly aware, and I as a member of the committee am keenly aware of the scarcity and difficulty of doctors in remote areas, as well as in certain parts of congested cities.

I represent a section where they are in desperate need for medical attention, where people actually die in automobiles on the way to county hospitals 25 to 30 miles away. There is not even a district nurse available for first aid in case of a heart attack. I can understand your feeling about the budget figures, which in most cases, are either the same, or are only slightly more than the present fiscal year.

A couple of times in your presentation you referred to a full authorization.

I guess it is inherent, but it is unfortunate that Congress holds out false hopes to the American people by passing these very ambitious bills. It comes out in the newspaper, Congress has authorized so many million, and so many billion for this. Then it comes to the appropriating process and they get only a small part of it. In some cases none. The system enables Congress to vote for these fine worthy objectives, and then dump into the lap of its appropriating committees the problem of funding the money. If we appropriated all of the authorizations, why, in 1 year, we could bankrupt the Treasury. I do not justify that method of doing business, but it is one we are faced with.

Now, you have got certain categories here that you emphasize.

Incidentally, included here somewhere is the training of servicemen who come back from the service, they are the allied health?

Dr. FILERMAN. Yes. Supporting ancillary personnel, Senator.

The amount for the universities is increased by \$250,000. The traineeships is exactly the same as last year; education grants, contracts, direct operations, that has been advanced from not quite \$6 million to almost 17 million.

It has been increased by about \$11 million. The example you mentioned, the assistant physicians, and other paramedical people is a very good one.

All of the health professions are under great pressure, much of it from the executive branch to establish programs in these areas, among them programs for returning veterans who have had some health training in the military services, and all of the health professional schools, public agencies are anxious to be responsive to those kinds of requests, inasmuch as they recognize the problems of finding appropriate places of employment for veterans, as well as the need for health manpower to which they are addressed.

There simply is no practical way that they can provide broad national response with the amount of present funding that they have.

The administration puts us on the spot by on the one hand creating the image that all of that is necessary for the schools to innovatively open places for these people, and on the other hand, in some cases decreasing the support of those programs.

Senator CORRON. That is perfectly true.

This is always an unfair question, so you can plead the fifth amendment and refuse to answer it if you want to, but will you give me some idea of your own estimation of the relative importance, one, two, three, and four, of the different programs you have emphasized?

Dr. FILERMAN. Well, I think that all of the health professions would agree that the most important element that we are currently considering in this time period is the capacitation grants. The capacitation grant system opens the way for a new balanced long-term approach to support the health profession education.

We realize that because of pressures on the budget, that there are going to be dollar trade-offs within the capacitation system, but it is extremely important that principles be established at this juncture.

These are the institution grants, Senator, which provide the basic support on increased student enrollments to increase the number of qualified faculty curriculum innovation, and these, you can say, here it is necessary teaching equipment to raise the standards of all health professional schools, by the same token increasing the number of graduates, to complete the health demands of this Nation.

At the same time it overcomes some of the restrictions on the very tight categorical grants. It gives them some kind of flexibility with money that comes from other resources in a most effective manner.

In a kind of spread out one, two, three, four fashion, I would say there are four categories, that are basic to the whole program, and I would say construction grants, student and institutional grants are basic ingredients of a successful program, and I think the next two would be the special projects for innovation, supportive projects, or ongoing programs, and then again financial assistance to the schools, inasmuch as 63 percent of the medical schools are in financial distress.

Senator CORRON. You realize, of course, that one Congress cannot bind the next one, and I do not know what percentage of all the money that would be in this whole bill will be borrowed money that we will be borrowing and paying interest on.

Every man thinks in terms of his own profession, or of his own job as being the most important.

He would not be in it, if he did not.

In my opinion, the health, education, and welfare bill is the last place we should cut.

I have a reputation for being a conservative in the Congress, and being tightfisted, and I have voted against many appropriations, but I

have gone along with the chairman, who has given his great leadership in this field, year after year to give just as much as we possibly can, for all of these programs, vital programs, which pertain to the health of our people.

I have cut out moonshots and voted for cuts out in many places, but not here. So we will go as far as we can, but we cannot make a guarantee either.

I belong to the President's party, and I am one of the President's loyal supporters, but I am beginning to think that we are living in a fool's paradise. I do not like the fiscal situation, and I am very apprehensive to what is going to happen.

We cannot guarantee of course, if we authorize a construction of a building, and we get it started, that you will have some guarantee that it will be carried through, but when you try to adopt a system that says to all medical schools in the country, we will try to increase you such and such a percentage year by year in the next 5 years, it just does not bind the next Congress.

They may find they can, and there is just no way of making an absolute guarantee.

Dr. FILERMAN. I think it is fair to say that Congress has made an immense contribution to the previous Health Education Act. We are now talking about a second generation, which improves, but in terms of an overall continuing commitment, that was a very effective public investment.

Of course, I do realize the problem of binding future Congresses. I think it is entirely essential that we have some stabilization in the program, in the 3-year program as recommended by the House, 5-year programs, maybe somewhere in between, but there does need to be some stability in the programs so that the schools can plan over a period of years.

We have added to these programs, first construction in 1963, and fellowships and loans, 1965, and institution grants, 1968, and so forth.

Now we have got the total package. What we need is some stabilization so we can plan, at maybe not full authorization, but at some level in the next few years.

It would be most helpful.

Senator COTTON. Many of our authorization bills do that. They lay out a 5-year program, and they say \$800,000 the first year, a million the next year, and a million and a half the third year. They lay it right out as pretty as a picture, but it is just an authorization. When the appropriating committees come to appropriate, and they run over the budget, then they knock some of it off.

We will do what we can.

Dr. FILERMAN. We appreciate that, and we thank you very much for the opportunity to speak today.

Senator COTTON. Thank you, gentlemen, and I hope I have not sent you away disillusioned.

STATEMENT OF REV. T. BYRON COLLINS, S.J., SPECIAL ASSISTANT
TO REV. R. J. HENLE, S.J., PRESIDENT OF GEORGETOWN
UNIVERSITY

GEORGETOWN UNIVERSITY HOSPITAL CONCENTRATED CARE CENTER:
CONSTRUCTION GRANT

Senator COTTON. We will now hear from Father Byron Collins, Experimental Hospital, Georgetown.

Father COLLINS. Thank you very much, Senator.

Senator COTTON. Father, it is always good to see you.

Father COLLINS. It is a distinct pleasure to be here.

Senator COTTON. I want to express my appreciation to you for your kindness to my wife when she was out in the hospital.

Father COLLINS. It was a pleasure.

Senator COTTON. You were very helpful to her, and you did not even try to proselytize her.

Father COLLINS. We are more liberal now.

My statement will be very brief.

I am Rev. T. Byron Collins, S.J., President of Georgetown University.

I am here to ask your consideration of a critical plight of Georgetown University Hospital. The present Georgetown University Hospital started its service to the District of Columbia metropolitan area and the nation in 1946.

Conscious of the need to update the physical structure, in 1964 we applied for and received a grant for developing unique concepts for providing flexible space for new technological patient care and with a view to reducing costs in patient treatment and care.

Working with the research division of the Public Health Service and with other national experts in the field of health care facilities design, we have completed this study and started the first phase of the construction.

The idea that has developed in the design is to concentrate specialized care in modular units that then can be adapted to other hospitals that are in the same need of updating their facility in order to provide new technological medical care in an efficient and cost saving method.

The cost of this radical experimental facility is \$23 million dollars.

In order to be able to continue the construction of this experimental concentrated care center project of \$23 million and not leave it half finished, Georgetown University requests a grant of \$8,280,000 under section 304 of the Public Health Service Act.

Since the construction of an experimental hospital cannot be financed through ordinary Hill Burton methods, there is a loan provision in section 643-A of the Public Health Service Act for experimental projects.

May we request that loan funds be made available in the amount necessary to insure the completion of the project.

The financing summary would be as follows:

Present grant (planning and first phase of construction) -----	\$6, 900, 000
Grant request -----	8, 280, 000
Two-thirds of project (approximate) -----	15, 180, 000
Georgetown University loan funds -----	¹ 7, 180, 000
Total -----	23, 000, 000

¹ This loan would have to be increased if the grant money were less.

Mr. William M. Bucher of the Hospital Council of the National Capital Area will present the part that this experimental concentrated care facility plays in the kaleidoscope of the Metropolitan Washington hospital facilities.

Georgetown University Medical Center and myself have worked assiduously for the health facility needs of the entire District of Columbia.

There is such a need for the concentrated care center that we have started construction so that Georgetown University can do its share in solving the health care needs and problems of the District of Columbia.

We earnestly implore that we receive these necessary funds so that we will not have a building with the upper floors being only exposed beams; and your petitioner will ever pray.

Senator CORTON. Thank you, Father Collins.

Now, the authorization that you referred to, is the present grant under that?

Father COLLINS. That grant was given before this particular piece of legislation was passed by Congress. It was passed under the old section 737 of the Hill-Burton Act, and this then was updated, and we had the grant at that time, and we have been working for a number of years to perfect this. Sections of it had been tried in other parts of the country, and our purpose is to take those models, put them together, and have them fit as the part of the District of Columbia metropolitan area models.

There is a point I would like to make, I know that Senator Magnuson and yourself constantly raise, and it is what contribution does the locality give.

The next question, why do we come to the Federal Government?

Well, we are here in the fortunate and unfortunate position that you are our Federal Government, our State government, and our city government, and so under that aspect, we ask consideration of the grant, and it is under that specific aspect that the loan provisions have been passed, and have helped the hospitals in the District to fulfill the needs that are necessary.

I have worked very hard in this program, and you yourself and Senator Magnuson and your committee members have helped, and we have made great strides, and in 2 years we will have something which the District will be extremely proud of which this will be a necessary part.

Senator CORTON. I know that the chairman of the subcommittee, the whole subcommittee, and the full committee are conscious of our responsibility for the health and welfare of the District of Columbia. As long as it remains a Federal reservation for the Capital of the United States we have that obligation. I wonder once in a while

whether the people in the District would improve their lot too much if they had statehood, because that would mean the rest of us would not have quite the same burden of responsibility. I recognize what you are doing because of the fact that Mrs. Cotton has been out at Georgetown three different times. In my daily visits, I see the throngs of people that you care for and deal with. I can tell they come from every walk of life.

I suppose that no hospital in this city, except possibly the District of Columbia General Hospital has done quite so much in the way of care for disadvantaged people than yours.

Father COLLINS. Yes, Senator; and this is one of the reasons we are constrained to ask Congress for help, and it is because Georgetown University, of which I am a proud member, is very proud to be the core support for the District of Columbia General Hospital.

Our faculty staffs it, the costs that we incur in running it, the medical services of it, and we do not get reimbursed. We understand this is part of the problem of the District of Columbia, and that is one of the real reasons that necessitates our being here for this request, and this will have a direct benefit to the patients that are at District of Columbia General, because they are experimental, and they are persons that are extremely sick, many of them are brought to Georgetown, because we are the associated hospital with District of Columbia General.

It is one of the things that we do.

Senator COTTON. Of course, I always have been a bit unhappy about District of Columbia General, because they changed its name from Jacob H. Gallinger, who was Senator from the State of New Hampshire. He served longer than any other man ever served before or since in the Senate from my State.

He was a practicing physician when he first came to the House of Representatives. He was the man who pioneered and founded by getting the money that built what is now the District of Columbia General. It was the Gallinger Hospital delegation the hospital was named for him, I do not know what the delegation from New Hampshire were doing the day the Congress changed its name, but if I would have been here, I would have protested violently. Nevertheless, it is in history, and I would like to have that in the record.

I am sure you do have the very sympathetic consideration of this committee.

Father COLLINS. Thank you very much. As usual, it is a pleasure to present the needs and efforts in our struggles for the District.

It is a pleasure to stop in and see you.

Senator COTTON. Thank you.

(The information follows:)

OBJECTIVES OF THE CONCENTRATED CARE CENTER

CONCEPTUAL DIRECTIVES

The plan for the Concentrated Care Center was conceived with the primary objective of establishing new levels of quality medical care. This was to be accomplished in a manner that would make maximum utilization of equipment and personnel, in order to attain utmost efficiency and contain cost. Investigations into hospital and medical center planning demonstrated several areas requiring serious consideration. While some of these had been dealt with individually in different institutions, nowhere was the total complex dealt with as a whole. The main areas needing investigation were:

1. Improving patient care organization, so that levels of medical and nursing skill and care will be related more realistically to the specific needs of the individual patient and organization of facilities, services and staff to provide effective continuity of care at the various levels of service which the patient requires.
2. Improving the functional efficiency of existing medical facilities, by modernization and expansion.
3. Improving the functional design of the structure by placing special emphasis on flexibility and taking advantage of recent architectural and engineering advances. This flexibility of design should manifest itself in a facility that is adaptable to future and more advanced scientific and technological discoveries.
4. Improving the operating efficiency of the medical facility as an organization, so that optimum performance can be obtained from the medical staff, administration and other personnel.

OBJECTIVES

By using these directives as a basis, objectives were established as follows:

The first objective is to construct a demonstration facility, containing all the essential elements for the treatment of the acutely ill, within a single facility. The facility will have a twofold function:

1. For inpatients, this facility will serve as a means of demonstration of several concepts which will improve the overall quality of medical care:
 - a. Separation in an isolated unit of the acutely ill from the non-acutely ill, where the facilities, services and staff are so organized to render that level of care, which each individual's condition requires.
 - b. Implementation of the concept that all post-surgical cases demand intensive care in acute and sub-acute units, with extensive physiological monitoring, regardless of the degree of surgery that was performed, and the further extension of this specialized treatment to the non-surgical acutely ill patients in the same units.
 - c. Establishment of a pre-operative unit that is a continuous part of the operating suite and under the same management.
 - d. Utilization of every modern engineering and architectural technique in the construction and design of an operative suite, so as to eliminate or reduce to the minimum a possibility of the introduction of infective elements.
2. For outpatients there will be an emergency and disaster center, that will function as the emergency suite for routine use, or for large scale disasters.

The second objective is a demonstration of how existing medical facilities can be modernized and reorganized to support the aforementioned newly constructed units, while also demonstrating new experimental research concepts, which will increase the efficiency of

medical care in the entire hospital complex. In this regard, the function of the existing bed facilities would therefore be limited to the care of the non-acutely ill, as its conventional design dictates.

In the implementation of this objective, the following studies will be undertaken:

1. Systemization of all materiel handling and implementation with appropriate automation.
2. Electronic applications to management information systems.
3. Complete situational control of the patient treatment complex.
4. Design flexibility and provisions for change and/or expansion.

SPECIFIC GOALS

A specialized inpatient medical management facility which provides for:

1. Isolation of intensive and acute from less acute medical problems.
2. Flexible management of resources to level of need required by individual patient.
3. More efficient (less costly) management of skills and resources, especially with regard to the overall cost of care throughout the hospital.
4. Care of all post-surgical cases by intensive level management for as long a period as required.
5. Entry and retention of all serious risk patients regardless of level of care required.
6. Economically useful number of beds which relate to the capacity of the operating suite in addition to medical and other service based intensive care problems. Quantification of turnover rates should be accomplished to assist in program evaluation.
7. Flexible management of patient loads as related to nursing stress.

Operating room suite with extensions which provides for:

1. Next generation of physical design for operating room suite.
2. Maximum control of infection through systems planning for personnel and goods flow in addition to environmental and geographic control.
3. A specialized pre-operative suite for efficient preparation and delivery of the patient to the operating room.
4. Vastly improved system of post-operative care with careful study of post-anesthesia recovery and bed unit options.
5. Restricted processing of surgical instruments and equipment, correlated with general supply flow.
6. Patient and personnel access and egress systems relating to the emergency suite, operating room suite and bed units, etc.

Emergency, Disaster, Trauma, Ambulatory Care which provides for:

1. Improved access for both emergency and disaster conditions.
2. Effective categorizing of patients at the entry point as required by need for extension of life:
 - a. Disaster
 - b. Trauma
 - c. Emergency

- d. Ambulatory
 - e. Observation
 - f. Special problems
3. Effective management of accompanying persons:
- a. Family and friends
 - b. Police and press
 - c. Special persons
4. Adequate diagnostic services for emergency and disaster conditions.
5. Organizational and physical plans for mobilization under disaster conditions.

Overall organization of the Concentrated Care Center which provides for:

- 1. Supply, distribution and processing
 - a. Central organization and planning of hospital service systems as needed by the CCC.
 - b. Integration with and modification of existing systems.
 - c. Mechanization to effective cost-benefit levels.
- 2. Communications
 - a. Current and future systems related to management information, physiological monitoring, education and clinical research.
 - b. Emphasis on compatibility of audio-visual, video and data processing systems on a University-wide basis.
 - c. Special emphasis on situational control of patient and positional information regarding resource personnel.
- 3. Patient Accounting
 - a. Advancement of admitting, accounting, and locational systems as emphasis shifts from care by service to level of care.
 - b. Continuous review of charge levels, mode of payment (third party, etc.) and related cost accounting.
- 4. Patient Management
 - a. Continuing development of medical management methods.
 - b. Emphasis on services-to-patient concept wherever feasible.
 - c. Study of utilization and level of care review functions, including problems of declassification.

Provision for critical hospital departments and other projects which provides for:

- 1. Current or phased redevelopment of hospital departments, especially diagnostic services, as allowed by budget.
 - a. Diagnostic Radiology
 - b. Clinical Laboratories
- 2. Change of assignment for vacated areas.
- 3. Preservation of options for future projects.
 - a. Lombardi Cancer Center

- b. Medical, Dental and Nursing School growth
 - c. Vehicular traffic and parking
 - d. Campus-wide effects
 - e. Ambulatory care
 - f. Teaching space within the hospital and CCC
 - g. Future bed needs
4. Establishment of management based, continued planning methods to provide balanced development and priority ranking of individual departments on the basis of need.

GRANT CONSIDERATIONS

One of the principal investigators in this research project, Charles A. Hufnagel, M.D., testified before the Subcommittee of the Committee on Appropriations of the U. S. Senate (H.R. 5888) on June 4, 1963. This Subcommittee was considering an increase in funds for the Hill-Burton Hospital Construction Program. The main points of the statement made by Dr. Hufnagel were:

1. A plea for increasing the Federal Funds as appropriated by the House of Representatives to the ten million dollars authorized for hospital construction, research programs and demonstration facilities.
2. Elimination of one-third matching limitation as written into the Act by the House of Representatives.
3. Presentation of new concepts to increase the quality and efficiency of medical care and management. These concepts were based on extensive studies conducted at the Georgetown University Medical Center. Also included in this presentation was a construction program for a special demonstration facility. This special facility (Disaster Center) would be designed for the simultaneous treatment of large numbers of acutely ill patients.

The subsequent report (No. 383) from the Senate Committee of Appropriations contained an increase of \$300,000 over the budget approved by the House of Representatives to provide the Federal portion of planning funds for the Disaster Unit. Public Law No. 88-136 sustained the action of the Senate Committee.

On December 31, 1963, Georgetown University submitted a research application to the Health, Education and Welfare Department for an experimental demonstration project entitled, "Experimental Research Concepts to Increase the Quality and Efficiency of Medical Care." This submission (termed the "Medical Concepts Submission") elaborated on the medical concepts of the project and specifically requested planning funds. This submission was approved by the Federal Hospital Council in April, 1964, and resulted in a Government award of \$230,000 for the purpose of conducting the necessary research and planning of the project from April 1, 1964 through October 31, 1965.

On June 30, 1964, Georgetown University submitted an application for an experimental and demonstration construction and equipment project grant (termed the "Schematic Design Submission"). The presented material was intended to project concepts of design and not detailed developments of these concepts. As explained in that submission, there would be subsequent submissions to carry forward these concepts by means of more detailed drawings and a comprehensive analysis of the programs as well as a finalized funding program.

Subsequently, Georgetown University provided a "Design Development Submission" prepared under Research Grant No. HM00390-01,02. It was comprised of text material as well as architectural drawings. That submission enlarged upon the "Schematic Design Submission" and included the following elements:

1. Detailed budget including the Federal and University participation.
2. Budget estimate of construction and equipment costs summary.

3. Biographical sketches.
4. Notes on personnel and organization.
5. Introduction and major objectives.
6. Presentation of individual programs to include:
 - a. Background and significance of the program
 - b. Specific aims and novel features
 - c. Method of procedure
 - d. Evaluation and research methodology
 - e. Construction details
 - f. Construction and equipment costs
 - g. Budget, maintenance and cost estimates

That application was also a specific request for assistance in:

1. The funding of an experimental or demonstration construction project.
2. The acquisition of experimental or demonstration equipment.
3. The support of evaluation and research study of the program.

On March 11, 1965, Georgetown University provided a revised series of thirteen research programs as a portion of a revision of the grant application. As reviewed during February of 1971 in the course of current work this listing (excepting the program for hyperbaric units) was approved as the research basis of the project. The resulting twelve programs have been paraphrased as follows:

Program No. 1

By pre-construction operating analysis and by post-construction review techniques, demonstrate that for outpatients this facility, located in a metropolitan area, can serve as an emergency center for simultaneous treatment of a major number of persons acutely ill as the result of a mass disaster. Although staffed, equipped, and organized to handle major disasters this unit will also serve on a day-to-day basis as a hospital emergency facility.

Program No. 2

Demonstrate the value of separating the intensively and post-intensively ill from the acutely ill in an isolated unit of the hospital where the services, staff and facilities are specifically organized to render the level of care each patient requires.

Program No. 3

Implement and evaluate the concept that all post-surgical cases demand intensive care in specialized inpatient units with the capability of extensive physiological monitoring regardless of the degree of surgery performed. Also, evaluate further extension of this specialized treatment to non-surgical, acutely ill patients.

Program No. 4

Establish and evaluate a pre-operative unit contiguous with the surgical suite. This concept will provide all patients scheduled for surgery with pre-operative examination and preparation by teams of highly trained personnel grouped in one central location and managed so as to minimize patient traffic between preparation and surgical phases of therapy.

Program No. 5

Develop programs and designs of an operative suite to reduce to a minimum the introduction or recycling of infectious agents. The special emphasis of this program is on the evaluation, both cost-effective and ultimate, of all known engineering and planning techniques, which might be applied to produce a new generation of operative suites. As indicated by pre-construction investigations and the availability of funds, a portion of the suite may be developed to provide the hospital with a surgical facility development laboratory so that further technologic inputs may be evaluated over the course of time in the facilities as constructed.

Program No. 6

Program, design and execute a central supply and distribution function for the Concentrated Care Center. This system must be capable of modular implementation with the first stages applied to the Concentrated Care Center, but further stages embracing the entire hospital complex. Final system design will consider appropriate levels of container distribution, mechanization, and delivery mode (batch vs. continuous flow, etc.). Data retrieval and compatible communication systems must also be considered.

Program No. 7

As in Program No. 6, such systems should be extended to return cycles, processing cycles, trash collection and disposal of goods, etc.

Program No. 8

As a special loop within the above stores distribution and process system, food services should be analyzed and developed as a compatible unit of the overall system. Special attention should be given to current and future developments in food processing and services. Specialized attention must also be given incremental implementation of the food system.

Program No. 9

Program, design, install, operate and evaluate electronic systems applied to problems of an administrative nature. It is stipulated that a number of major problem areas of hospital utilization can undergo major improvement by virtue of processed data support in a number of administrative activities. Especially affected is the amount of time spent by Registered Nurses in reporting and locating functions and in the management of staff, patient and visitor traffic. These functions involve transaction reports, positional and status information related to personnel resources and the dissemination and retrieval of information generated by individual episodes in the patient's nursing progress. Related to traffic are the systematizing of patient and personnel access routes including consideration of staging and surge effects.

Program No. 10

Develop, operate and evaluate the series of systems related to the situational control of the patient. The operation of the entire treatment complex will be geared to a determinable network with a considerable emphasis upon diagnostic and treatment services being brought to the patient. The system should permit the rapid concentration of highly trained and effective diagnostic treatment teams in well defined areas. It should also provide eventually for a central organizational and communications mechanism, which will effectively relate the individual patient situation, the appropriate medical response, and the overall utilization of medical center facilities.

Program No. 11

Investigate, define, program, select, install, operate and evaluate systems for the monitoring of the individual patient's vital physiological responses. The broadly recognized value of intensive care has been offset by the intensity of personnel support required for effective application of the technique. It is considered possible to provide a high degree of surveillance with a greatly reduced professional staff. When proven, this development will bring the advantages of intensive care within the economic means of a major segment of patient load. The monitoring system envisaged would be initially implemented within the confines of the Concentrated Care Center but may be extended to other areas of the hospital, especially such individual units as the Lombardi Cancer Center. Elements of the system would include intensive care monitoring, coronary intensive care, monitoring in surgery, neuro and cardio-vascular surgical monitoring and additional currently undesignated areas.

Program No. 12

Provide an unusual extent of flexibility, adaptability and expansibility in the architectural and engineering aspects of the facility.

Between 1965 and the current work period significant sums have been drawn down on the committed grant funding of \$6.9 million. These funds were expended for planning, for utilities planning and construction related to the CCC and for internal grant development.

On March 26, 1971 a project review meeting was held in the office of Research Programs and Grants of the National Institutes of Health. The meeting was attended by representatives of the Federal Government, Georgetown University and Smith, Hinchman and Grylls. Three issues were discussed:

1. Reactivation of the Project, current objectives and time schedules.
2. Validity of previous concepts for the current work. It was suggested that outdated or superseded concepts be dropped or modified and that new concepts be developed if applicable.
3. An updated submission will be prepared as soon as the project is developed to the appropriate stage.

63-792 3875

STATEMENT OF O. WILLIAM MOODY, ADMINISTRATOR, AFL-CIO
MARITIME TRADES DEPARTMENT

PUBLIC HEALTH SERVICE

Senator COTTON. We will now hear from Mr. O. William Moody of the AFL-CIO in reference to the U. S. Public Health Service hospitals and clinics.

Mr. MOODY. Thank you very much, Senator Cotton.

If I may, with your permission, I would like to have sit with me Mr. Robert Vahey, who has participated throughout the last months on research of the problems of the Public Health Service hospitals.

My name is O. William Moody. I am here today representing the 7.5 million members of the Maritime Trades Department of the AFL-CIO, and also the Seafarers International Union of North America, which represents merchant seamen, fishermen, and inland boatmen served by the U. S. Public Health Service hospitals and clinics.

The Maritime Trades Department and the Seafarers International Union are pleased to have this opportunity to appear before your committee to express our grave concern over the administration-proposed budget for the Public Health Service.

This proposed budget is based on shifting all health care functions and services now handled by the Public Health Service hospitals and staff to a contract basis.

Care would thus be obtained from private hospitals in communities where seafarers and other primary beneficiaries of the PHS system work and live.

However, we feel that more is at stake in this issue than merely the method by which health care for seamen is administered.

For the real issue involved here, and the great loss that would result should we go forward with this proposed budget, is in the PHS staff and hospital facilities that would be lost, and which, in this age of too little available medical care, are irreplaceable.

Thus, we have come before you today to ask two things:

First, we strongly urge that funds for the U.S. Public Health Service in the 1972 budget be increased so that the Public Health Service will be able to operate at full effectiveness in fiscal 1972.

To accomplish this, an increase of only \$30 million is required. This would mean a total of \$101 million, an increase of \$10 million over the 1971 fiscal year budget.

This increase is based solely on the inflation in hospital costs since the 1971 budget was proposed.

And, secondly, we would ask you to recognize the great potential in the Public Health Services for new and innovative types of medical services by appropriating funds for the renovation and modernization of the eight PHS hospitals.

Let me more fully explain these two vital points.

The Public Health Service Hospitals have existed since 1798 as medical facilities for seamen at first, and later for a wide range of other governmental groups, including the Coast Guard, Public Health Service Officers and injured Government workers.

Today, the U.S. Public Health Service maintains eight hospitals, 26 clinics, has a permanent staff of over 6,200, and each year runs over

100 health manpower training programs that provide vitally needed medical personnel throughout the country.

In spite of this superb record of service, the Public Service has been marked for destruction, as the figures in this budget so graphically illustrate.

The proposed 1972 budget will shut down the eight USPHS hospitals and all 26 clinics. Even though these hospitals may be given to community groups, there is no guarantee that the communities want or can afford to operate these facilities.

The proposed 1972 budget will decimate the U.S. Public Health Service Officer Corps—reducing it from 6,200 to 970.

The 1972 budget will mean the termination of more than 100 training programs that each year turn out thousands of new medical personnel.

This will be the cost in terms of human values of converting to a program where all medical care for Public Health beneficiaries is provided by private contracted hospitals. And what will such a program achieve?

It will mean that where it now costs \$70 a day to treat a seaman in a USPHS hospital it will cost \$100 or more under a contract system.

This difference is even greater when it is considered that the \$70 figure for the Public Health Service includes all doctor costs, while the \$100 a day private hospital cost pays only for the basic hospital services.

I would like to call your attention to the statement filed yesterday by Senator Ellender, who pointed out the average cost per day is only \$58.44.

We took our research costs to draw this comparison.

It will mean that where before \$90 million was considered sufficient to pay for the entire U.S. Public Health Service, its 26 clinics, eight hospitals, and all the medical care needed by USPHS beneficiaries, we must now pay at least \$71 million for medical care alone, without any of the ancillary benefits that the U.S. Public Health Service provides.

That is the true dilemma we face here today. Is this economy, to sacrifice these hospitals, these fine doctors, these tremendous training programs, for a paper savings of \$30 million?

We submit that this is a purely paper savings because it is clear that Federal Government loans to these hospitals, should the communities take them over, will far outstrip the \$30 million.

These loans, in the form of Hill-Burton construction and general aid funds, have been promised to the communities where PHS hospitals are located as an incentive to take over the hospitals.

Thus the proposed savings in this budget are illusory at best, as they represent a shift of funds that will cut the budget in one area, but increase its commitments in another.

It is clear to us that this figure-juggling in the proposed 1972 budget will result in nothing except that the Nation will be left without the services of the world's finest public hospitals and their dedicated staffs, and that Public Health beneficiaries will be left to the vagaries of an ill-defined and highly-expensive private contract system.

In this sentiment we were joined 2 weeks ago by the Senate of the United States, when in Concurrent Resolution 6, the Senate also concluded that to try to save \$30 million by giving away the eight PHS hospitals was no bargain at all.

In the resolution, the Senate endorsed the continued operation of the complete Public Health System at least through 1972, and in addition the Senate endorsed our second proposal of seeking modernization and improvement of the hospitals.

This committee, by reinstating the \$30 million needed to operate the hospitals at full effectiveness in fiscal year 1972, will insure that these fine hospitals and their dedicated staffs will be able to continue to serve the medical needs of Public Health Service beneficiaries and of all Americans.

We should like to add at this point that it is the position of the Maritime Trades Department and the Seafarers International Union that the PHS hospitals could be more fully utilized through a program of increased care and training for the citizens of the communities where hospitals are located.

We feel that it is far better to expand the role of an existing hospital than to try to shift its ownership and operating structure, as the contract plans propose.

Before I move on to my second point, let me say a word about the contract care system proposed as the alternative to the Public Health System.

As I have said, the AFL-CIO Maritime Trades Department and the Seafarers International Union represent the seamen beneficiaries of the PHS.

These men have by law been guaranteed the right to priority care at Public Health Hospitals because of the special health needs that are a part of their occupation.

In any contract care system, this concept of priority care for seamen would be one of our main points of concern, as the chances are slim that any private hospital plan or contract care system can be devised that will adequately provide priority care for seamen.

By moving a seaman ahead of a local citizen waiting for medical care, the concept of priority treatment creates difficulties for any contract program, as it is the citizens who pay the tax funds to support the hospitals, should they be turned over to the communities.

As a result, when a seaman who, by the very nature of his calling, is often not a member of the community, is given care first, the local citizens would be understandably angered.

As committees in the House and Senate have both recently affirmed the continued necessity of this concept, we feel strongly that the contract care systems now being investigated under the provisions of the 1972 budget will not be adequate to the needs of the seamen beneficiaries of the USPHS in that they will be unable to meet their needs for readily accessible and immediate care.

Finally, let me discuss my second point, that of the promise of the U.S. Public Health Service, should funds be appropriated for renovation and modernization.

Most of the buildings of the USPHS have been neglected for years by succeeding administrations and have been given little money for improvements and renovations. From the outside these hospitals often belie the fact that inside these buildings are among the most outstanding doctors and health facilities in the world.

With funds for modernization, we feel that these hospitals would be of greater service not only to PHS beneficiaries, but to all Americans.

With modernization, these hospitals could lower their daily patient costs, or at least hold them at the present \$70 level for some years to come.

With modernization, these hospitals could serve as models to the Nation's private hospitals for the ideal community hospital of the future.

And with modernization, the Public Health hospitals could expand their already phenomenally productive training and community service programs, so that public medicine could once again exemplify to private medicine all the best in service to mankind.

In this regard the USPHS hospitals could perform a valuable function as a proving ground for new hospital and medical equipment, to serve as a guide to the medical industry of the best and most functional equipment available and to provide guidelines for computerization of medical knowledge and for development of new methods of reducing the cost of delivery of hospital services. Thus, private hospitals would be saved many of the pitfalls of searching through the equipment market for suitable machinery for their hospitals.

This great promise can be realized by the establishment of a planned modernization program for the Public Health Service.

Its cost would range from \$125 to \$175 million and would be a true and lasting investment in the future.

Such a plan, spread over 5 years, would accomplish much at a relatively small cost and would reap returns not possible through other programs.

We believe the U.S. Government has a place in medicine and that the U.S. Public Health Service hospital system fills a need in an area where no other agency, public or private, would suffice.

By the approval of this program, this committee will have rededicated the U.S. Government to the pursuit of quality medicine for the seventies and beyond.

Thus, it is that we so urgently request this committee not to approve the budget of the Public Health Service now before you.

We ask instead that you add an additional \$30 million to the budget, in order to provide for the complete functioning of the U.S. Public Health Service in fiscal year 1972.

At the same time, we urgently request that this committee appropriate funds to begin the modernization and updating of the eight U.S. Public Health hospitals.

By providing these funds, this committee will insure that the vital work of the U.S. Public Health Service will be continued, and that these hospitals will be able to continue to serve the seamen, the fishermen, inland boatmen, U.S. Coastguardsmen and their dependents and certain other Federal employees who are the primary beneficiaries of the hospitals while at the same time they help to maintain the health of millions of Americans through a varied program of medicine, training, and technical advice to hospitals throughout the Nation.

Senator CORTON. I interpret your remarks to mean that if the Government saw fit to continue these hospitals, that would probably mean before too long in making a decision to improve them and getting them in shape, that your organization is perfectly willing insofar as you can

do so, without turning away seamen, to share the facilities of those hospitals with the general public?

Mr. MOODY. That is correct.

Senator COTTON. And it would seem to this member of this committee, that with the problems we are going to have, that every veterans' hospital and every public health hospital, every hospital facility in this country is going to be strained to its utmost before we get through. I shudder to think of the condition of some of our men when they get back from Vietnam, and some of the situations we are going to confront with young people right here from drug problems and various other problems. I agree with the chairman of the committee that this is a poor time to let go of any facilities that can be used to deal with some of these wounds, do you agree with that?

Mr. MOODY. That is our position exactly, Senator Cotton.

When it first became apparent to us back in December that DHEW was set on a course to close the remaining eight hospitals, and in 1946 we had 26 hospitals, and any suggestion that there is any degree of politics involved in this thing is entirely false, because this business of phasing out hospitals has been going on since 1964 under the administration of both parties, and our concern over these years, and our close attention to it, has led us to believe that we are really confronted with a hostile bureaucracy within HEW, and within the old Bureau of the Budget, and now the Office of Management and Budget that wants to see these hospitals closed out, and when this latest move became apparent to us, the suggestion was made that the Veterans' Administration hospitals could take up this slack, but you could rest assured, the VA hospitals do not want our patients, they have not got any room for them.

They cannot take care of their own, so we are quite in accord with the views you have just mentioned.

Mr. Chairman, I would like to point out that the seaman himself is entirely dependent and has been since 1798 upon the U.S. Public Health Service hospitals for his own medical care.

With the advent of the Seaman's Union in modern times, they have negotiated with the employer employer-supported benefits for health and welfare plans which provide medical services and care for the seaman's wife, children, and dependent parents, because they are not eligible for public health service hospital care.

Now, this has been testified to before other committees of the House and the Senate, but I think in the same vein, that if we close these hospitals, and leave the seaman to the mercy of contract medical care, we think we have been able to document where this has already happened, for example, Great Lakes, where there is no longer any Public Health Service hospital, that the contract medical care just does not supply the needs of the seaman, and he might be faced at some point with having to go to his employer for supplementary help to take care of him, which would put further burdens on what you know, Senator, from your position on the Senate Commerce Committee, is in pretty sad shape already.

Senator COTTON. Thank you very much. We appreciate your testimony. You will get some consideration from us, I am quite sure.

Mr. MOODY. We certainly appreciate the time you have given us, Senator, and we have taken a great deal of comfort over the years in the fact you and your colleagues on this committee, as well as the Commerce Committee have recognized these problems and have been sympathetic with us.

We have never felt our problems were legislative problems. Our problems over these last 25 years have really been on the administrative side. Any help you can give us with that, why, we will certainly appreciate.

Senator COTTON. Well, Senator Magnuson, chairman of this subcommittee, as well as chairman of the full Commerce Committee, has been in the forefront of this always, so I know you will have his sympathy.

He has a Public Health Service hospital in Seattle, one of the eight so that is certainly helpful.

That is your ace in the hole.

Mr. MOODY. I would like to maybe have a pair of aces back to back, by pointing out that New Orleans and Seattle, in New Orleans we have Senator Long, and then we also have Senator Ellender, and they are both deeply concerned with this matter.

These two hospitals are very important parts of the university medical training programs in those communities. It has been testified by the dean of the University of Washington Medical School, if something is not done for the Seattle hospital in the next 5 years, it will have to close anyway, and then the university will be faced with having to go somewhere to find the money to build the hospital.

Senator COTTON. What is the capacity of that hospital there?

Mr. MOODY. It is about 300 or 350 beds, as well as I remember.

Senator COTTON. Have you got a general estimate, or can you supply one of the capacity of all of the eight hospitals?

Mr. MOODY. Yes, sir.

Would you like us to submit this list that we have?

Senator COTTON. Yes, please do.

(The table follows:)

OCCUPANCY RATE, COST PER DAY, ADMISSIONS, BED CAPACITY, NUMBER OF INDIVIDUALS TREATED, AND NUMBER OF OUTPATIENT VISITS, U.S. PHS HOSPITALS, FISCAL YEAR 1970

	Percent occupancy of operating beds	Average ¹ cost per patient day	Inpatient admissions	Operating bed capacity	Outpatient care	
					Number of individuals treated	Number of outpatient visits
All hospitals, total.....	69.9	\$56.11	37,034	2,839	206,670	812,216
General hospitals, total.....	69.3	58.50	36,894	2,482	205,721	810,178
Baltimore.....	72.3	79.52	4,092	238	24,588	94,609
Boston.....	66.3	57.30	2,377	190	16,998	58,362
Galveston.....	78.1	52.44	2,804	160	9,317	45,277
New Orleans.....	76.2	45.33	6,172	403	37,630	145,447
Norfolk.....	67.6	58.34	3,306	210	13,312	92,983
San Francisco.....	68.3	57.14	5,224	366	42,049	118,574
Seattle.....	64.5	70.01	5,110	279	36,775	110,120
Staten Island.....	66.0	57.96	7,809	636	25,052	142,806
Carville (leprosarium).....	73.4	40.35	140	357	949	2,038

¹ Contains cost not normally included in private community hospital per diem costs such as clinical and laboratory services and physicians and dentists salaries.

Senator COTTON. We thank you very much for your testimony.
Mr. MOODY. Thank you, Senator.

SUBCOMMITTEE RECESS

Senator COTTON. The subcommittee stands in recess until tomorrow morning at 10 a.m.

(Whereupon, at 4:10 p.m., Wednesday, July 14, the subcommittee was recessed, to reconvene at 10 a.m., Thursday, July 15.)

DEPARTMENTS OF LABOR AND HEALTH, EDUCATION,
AND WELFARE AND RELATED AGENCIES APPROPRI-
ATIONS FOR FISCAL YEAR 1972

THURSDAY, JULY 15, 1972

U.S. SENATE,
SUBCOMMITTEE OF THE COMMITTEE ON APPROPRIATIONS,
Washington, D.C.

The subcommittee met at 10 a.m., in room 1223, New Senate Office Building, Senator Ernest J. Hollings presiding.

Present: Senators Magnuson, Hollings, Cotton, and Percy.

DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE

NONDEPARTMENTAL WITNESSES

SUBCOMMITTEE PROCEDURE

Senator HOLLINGS. The subcommittee will please come to order.

We will resume today receiving testimony from public witnesses on the Labor, HEW, and related agencies appropriations for fiscal year 1972.

Senator Magnuson, our distinguished chairman, is still in session upstairs, in executive session, as chairman of the Committee on Commerce. He will be down momentarily.

We have an unusually large number of witnesses on this appropriation bill this year, which has made it necessary for the Chair to request those testifying to keep their remarks very brief. We are, of course, interested in having the views and comments of all who expressed a desire to appear before the subcommittee. Therefore, the Chair suggests that the witnesses try to limit their testimony to 15 minutes.

Our first witness scheduled for this morning Senator Hartke, from Indiana, has been delayed. So we will commence with Mr. Arthur Simmons of the Seattle Central Area Industries in Washington. Mr. Simmons is not present? [No response.]

Alright, Mr. Jerome Kaplan, president of the Gerontology Association? [No response.]

(2435)

STATEMENT OF DR. JOHN KENNEY, CHAIRMAN OF THE COMMITTEE ON LEGISLATION OF THE BOARD OF TRUSTEES, NATIONAL MEDICAL ASSOCIATION

ACCOMPANIED BY:

DR. ANDREW THOMAS, SECRETARY TO THE HOUSE OF DELEGATES, NATIONAL MEDICAL ASSOCIATION

LOY KIRKPATRICK, COUNSEL TO THE NATIONAL MEDICAL ASSOCIATION

DR. GEORGE TOLBERT, DIRECTOR OF THE OFFICE OF DEVELOPMENT, HOWARD UNIVERSITY

VERNON C. SMITH, ADMINISTRATIVE ADVISER TO THE PRESIDENT OF THE STUDENT NATIONAL MEDICAL ASSOCIATION

INCREASING NUMBER OF BLACKS ENTERING MEDICAL PROFESSION

Dr. John Kenney, National Medical Association of Washington, D.C., Dr. Kenney?

We welcome you, Mr. Kenney. We are trying, with a long list of witnesses, to limit each witness. We are not trying to cutoff anybody, we want to hear you. If you want to file your statement for the record we will be glad to have you highlight the statement.

DR. KENNEY. Mr. Chairman, we are grateful to you and the members of your committee for your courtesy in receiving our statement today.

I am Dr. John Kenney, chairman of the committee on legislation of the board of trustees, National Medical Association.

Mr. Chairman, as you may know, this is an organization which represents the predominantly black doctors in the country but we do have white members as well.

Senator HOLLINGS. Let me ask you as a matter of interest, you say an association of black doctors. Is that an association growing or diminishing in membership?

DR. KENNEY. I would say we are growing.

Senator HOLLINGS. You are not getting integrated into the regular association?

MR. KENNEY. We are.

Senator HOLLINGS. I ask that advisedly, because I remember in my hometown you could not even list the medical association, in Charleston, S.C. They did not want to have their names listed with a Negro doctor, some 20 years ago, in the yellow pages. Therefore, in the yellow pages you could not find a doctor. I guess that is one of the reasons you folks got organized. Now that everybody is getting along and things have changed, you don't think the organization should merge with the rest of them?

MR. KENNEY. We are attempting that. Evolution has proceeded. Today there are a lot of things better. The American Medical Association chapters in the South, and you know you have to belong to the local chapter before you can belong to the overall American Medical Association, would not accept black doctors. Today there is no State in which that is true. The last one, Louisiana, removed the barrier some time ago.

Many members of the National Medical Association are also members of the American Medical Association. Still there are special areas of interest which concern predominantly the black group which makes

us still exist. For example, the reason we are appearing before your committee today, sir, is for that reason.

Senator HOLLINGS. Good.

INTRODUCTION OF ASSOCIATES

Dr. KENNEY. I have with me Dr. Andrew Thomas of Chicago, who is secretary to the house of delegates of the National Medical Association, Mr. Loy Kirkpatrick, counsel to the National Medical Association; Dr. George Tolbert, director of the office of development, Howard University, and Mr. Vernon C. Smith, administrative adviser to the president of the Student National Medical Association.

We are grateful for this opportunity to comment on some of the elements of the Labor-HEW appropriation bill for fiscal year 1972 and their critical importance for increasing the number of blacks entering the health professions generally and medicine in particular.

DESCRIPTION OF NATIONAL MEDICAL ASSOCIATION

Mr. Loy Kirkpatrick, counsel for the association, is particularly familiar with the problems and the recent legislation which has just been passed.

First, for the subcommittee's information, I should like briefly to describe the National Medical Association which we represent. The National Medical Association was founded in Atlanta, Ga., in 1897, and had as its purpose to provide black physicians an opportunity for professional association which was denied them by the conventions then in force.

While such strictures are now fortunately a historic fact, we have still found a dire need, as you indicated, Mr. Chairman, for an organization representing the minority physician and physicians in training, however, our organization's membership is open to any ethical physician irrespective of race, creed, or color. And many white physicians have seen fit to join the National Medical Association.

Senator HOLLINGS. What portion is white?

Dr. KENNEY. I would imagine 5 or 10 percent, a small number. We are predominantly black. But a small number of sympathizers. Even deans of some medical schools have seen fit to join with us.

We wish in the first instance to direct ourselves to the \$47.7 million which the Department of HEW has requested to fund loans and scholarship programs for health professions students in fiscal year 1972. We would hope to be given the opportunity to address ourselves to the appropriations implications of the principal bills now before the Congress to extend the health professions legislation beyond its expiration date on June 30, 1971, especially as such appropriation implications would affect the primary goal of the National Medical Association to significantly increase the number of blacks entering the health professions.

At this point I wonder if I may ask Dr. Andrew Thomas to continue with the testimony on page 3. Dr. Thomas, if you would.

I might say Dr. Thomas is particularly concerned with this because he is the head of what is known as Project 75 which aims by 1975 to increase the black physician population a sizable amount. Dr. Thomas, why don't you take on at this point.

Senator COTTON. You didn't mention the residence of your various colleagues. I am always interested in knowing where people come from.

Dr. KENNEY. Yes; Andrew Thomas is from Chicago. He is also secretary of the house of delegates of the National Medical Association. Dr. Vernon Smith is from Washington, D.C.—from Atlanta, Ga., originally, but he has just finished medical school. George Tolbert?

Dr. TOLBERT. Originally from Chicago but I live in Virginia.

Dr. KENNEY. Kirkpatrick is from Maryland.

Dr. Thomas?

Dr. THOMAS. In reference to the physicians among the black and minorities they have less than 3 percent. In that connection, Project 75 was created to try to redress that problem in terms of catching up to the numbers needed. We have had a strong measure of success in getting more college students among the minority population coast to coast interested in medical careers. We found, out of our 2,500-odd registrants for the project in the past year, that the single-most important problem facing their career decision as to whether to proceed was the guarantee that they could have funds that would carry them not only through college but on into medical school.

The situation is that some 80 percent of all of the minority students in medical school and/or college are from families with incomes under \$10,000 a year. Some 65 percent of them come from income levels below \$5,000 per year and a strong 22 percent come from families with incomes of less than \$3,000 per year.

We have some striking instances, for example, at the University of Kentucky where a young coal miner's daughter, whose father is retired and mother unable to work, has a capability and has been admitted to the University of Kentucky and has not received any degree of financial support on the basis of local input. Our national medical scholarships hope to be able to support the young lady. Even when we consider the private sector the National Medical Fellowships, Inc., is designated as a group that should allocate as many of the private resources as possible for funding the black and other minority students having demonstrated over the 25-year period that it has been in existence that it is the major source of funding for such students, the last year allocated some \$1.3 million of the needed \$2 million for this academic year, coming some \$600,000 short of reaching that goal. The Sloan Foundation and several other foundations and private individuals seem to have made a sizable dent in terms of the private sector but it is very clear that without the proper relationship of governmental funds to the overall task of underwriting the medical education process, it will be indeed hopeless that our minority students particularly will be able to pursue a medical education.

We would only be able to hold the 3-percent ratio which is clearly inadequate. We feel that the scholarship loan programs on a broad basis in terms of encouraging individual initiative should of course have the loan mix situation, loans mixed with grants directly for those who have already a burden of attempting to get ahead in American society. That would be consistent with goals projected in the Sloan A and C task force report. We feel that in the existing legislation we have not met the goals and in future legislation we should think in terms of having programs which overcome the barriers of these students. If you look at the impact of the pending legislation such as

S. 1183 in terms of items I have cited you will find that it would tend to eliminate the loan program and replace it with a revised student loan program geared to help professional students.

Secondly, it would continue the existing scholarship program but revise the starting in 1972 to allocate scholarship grants to various schools of health.

Senator COTTON. May I interrupt you for a question.

You mentioned guaranteed loans. We have had testimony in the last few days before this committee, not from minority groups, that the guaranteed loan program has not proven too helpful because of the fact that even the Government guaranteed loans, the banks wouldn't take them, with the result that the guaranteed loans in many instances haven't been of assistance.

Do you have some comment on that point?

Dr. THOMAS. We support that position. In fact, last year, this past academic year, President Nixon arranged with an official to have a special \$1 million guaranteed loan program administered by the organization particularly for the minority students who have felt the pinch even worse, which apparently was related to the degree of interest, and so on, that the banks would get from the transaction.

We found with the availability of the \$1 million we are able to use some \$600,000 and that those 350-odd students who were involved had a combined loan value already from other sources of nearly a quarter of a million dollars.

So that the students who are in the best of straits, particularly, find that the guaranteed loan simply overloads them further and puts a heavy mortgage on them to the degree that many of them are not going into medicine. It has two negative effects for any student.

Senator COTTON. Thank you.

Dr. KENNEDY. If Mr. Kirkpatrick would care to comment on that, too?

Mr. KIRKPATRICK. By way of clarity, of course, when we talk about guaranteed loans in the context of S. 1183 to be a program of \$5,000; in other words, the administration bill would structure to amend the existing loan program with respect to application to help professional students, would give them a good deal more money.

Senator MAGNUSON. What is the bill you mentioned?

Mr. KIRKPATRICK. S. 1183. That was the health manpower bill.

Senator HOLLINGS. It was just passed yesterday.

Mr. KIRKPATRICK. Yes. We have not had an opportunity to consider the effect of S. 1183.

Senator HOLLINGS. It is not law yet.

Mr. KIRKPATRICK. The House passed it.

Senator HOLLINGS. Yes, but they have to go to conference. We have to mark up this bill here. Our bill here is a race against time. That is why we rushed this thing and stayed in session late last night. Hopefully, if they can agree in conference and get back and get it down to be signed, the budget might be able to send up some further items in this bill. But we legally can't appropriate anything until it is authorized.

Mr. KIRKPATRICK. I understand, sir. Two of our basic problems, the guaranteed loan program, if you can do it that way, it will be helpful.

Senator HOLLINGS. It was a landmark in health manpower. It is a good bill.

Mr. KIRKPATRICK. We think so, too.

Senator HOLLINGS. I just point that out, that we are running against time, whether the conference can agree quickly. Then the budget is going to have to send up either in this bill or an extra amount if it wants them to have it in when we have the authorization. Part of the budget was in anticipation that this bill would pass. But it does not square on all fours with the bill. We will have to handle that. That is our problem. Go ahead. Excuse me for interrupting.

Dr. THOMAS. We are then very hopeful that that legislation that is passed would consider that the handicapping that is necessary among all of our economically deprived students from whatever source would have the recognition by Congress that medical education is extremely costly and the student admission rate is nowhere near adequate, as I am sure the Association of Medical Colleges will tell you later, and it is most imperative that if we are to guarantee the right to good health care for all our citizens it becomes mandatory for the Congress to underwrite the task to help them achieve that right to the degree that it can.

Thank you very much.

Senator MAGNUSON. I could not be here to hear all your testimony because we were engaged upstairs in the Commerce Committee.

On page 4, at the bottom of page 4, you say you are very fortunate the OEO is aiding in talent recruitment. But it does not support minority students financially.

Now I am glad that is recognized. There is a lot of misunderstanding about that. I am glad that you are not relying entirely upon OEO.

There is another problem. We don't even have an OEO authorization yet. That will be held up for months. I am pleased that you are zeroing in to do the job that should be done here on this business of loans and scholarships. Now they have cut out all fellowships completely.

Mr. KIRKPATRICK. By way of record may I emphasize one particular problem that obtains with respect to the health professions scholarships. It is with respect to the formula under which the scholarship grants will be distributed. Under the administration bill, the formula, the liberalized formula, which would in effect concentrate the loans, scholarships, on students, would take effect in fiscal year 1973. It will be a year from now.

Under the other bill, the administration bill, which we support in this instance, it would make money available this fall so that every medical school would be entitled to receive enough money for all of the disadvantaged students, low income.

I cannot emphasize how important that would be in terms of this fiscal year's goal of 1,000 incoming freshmen which would mean that 80 percent would be in need, 800 students would have to receive that money. It is a fine point, but it is an important point in our overall context.

Senator HOLLINGS. I have no further questions.

Senator COTTON. I have no further questions.

Senator HOLLINGS. Thank you all very much.

Dr. KENNEY. Thank you very much, sir.

(The statement follows:)

Mr. Chairman: We are grateful to you and the members of your Committee for your courtesy in receiving our statement today.

I am Dr. John Kenney, Chairman of the Committee on Legislation of the Board of Trustees, National Medical Association.

I have with me Dr. Andrew Thomas of Chicago who is Secretary to the House of Delegates of the National Medical Association; Dr. Loy Kirkpatrick, Counsel to the National Medical Association; Dr. George Tolbert, Director of the Office of Development, Howard University, and Mr. Vernon C. Smith Administrative Advisor to the President of the Student National Medical Association.

We are grateful for this opportunity to comment on some of the elements of the Labor-HEW Appropriation Bill for fiscal

year 1972 and their critical importance for increasing the number of Blacks entering the health professions generally and medicine in particular. (2)

First, for the subcommittee's information, I should like briefly to describe the National Medical Association which we represent. The National Medical Association was founded in Atlanta, Georgia in 1897, and had as its purpose to provide Black physicians an opportunity for professional association which was denied them by the conventions then in force.

While such strictures are now fortunately a historic fact, we have still found a dire need for an organization representing the minority physician and physicians in training, however, our organization's membership is open to any ethical physician irrespective of race, creed or color. (3)

as you indicated, Mr. Chairman,

We wish in the first instance to direct ourselves to the \$47.7 million which the Department of HEW has requested to fund loans and scholarship programs for health professions students in Fiscal Year 1972. We would hope to be given the opportunity to address ourselves to the appropriations implications of the principal bills now before the Congress to extend the health professions legislation beyond its expiration date on June 30, 1971 especially as such appropriation implications would affect the primary goal of the National Medical Association to significantly increase the number of Blacks entering the health professions. (4)

There is about one white physician for every seven hundred fifty white Americans, but only one Black physician for every thirty five hundred Black Americans. One of the most important statistical data we can give is that there are only approximately 6,500 black physicians in the United States. Only 6,500 out of some 300,000 physicians in the country are Black.

If we put it on a percentage basis and include other minorities, less than three percent of all physicians are in the minority groups which would include Indians, Puerto Ricans, Mexican-Americans and Blacks, as the only four groups in the country with proportionate under representation in the physician manpower pool. Such a vast under representation prompted, in April of 1970, an interassociation task force, composed of representatives of the National Medical Association, American Medical Association, American Hospital Association, and the Association of American Medical Colleges to urge medical schools to increase by graduated steps the number of minorities, including Blacks, enrolled in medical school to 11.9% by academic year 1975-76. (The Interassociation Committee was concerned with all groups currently under represented in the medical profession. Such under represented groups include Blacks, Mexican-Americans, American Indians, and main land Puerto Ricans. Since Blacks constituted ninety percent of the under represented minorities, and few statistics have been

gathered about Mexican-Americans, American Indians, and main land Puerto Ricans, the Interassociation Committee agreed to state data in terms of Black students, since Blacks serve as an adequate proxy for all such minority groups. Consequently, while statistical tables are given in terms of Black enrollment, the conclusions would embrace all minorities not just Blacks).

The Interassociation Committee used academic year 1969-70, as the base year from which to measure progress. In 1969-70, Blacks enrolled in medical school did not exceed 1,042 of total enrollment, and were but 2.8 percent of total enrollment.

Projected Increase In
Black Physician Production

Academic Year	Number of First Year Black Enrollment	Total Medical Enrollment	Total Number of Black Medical Enrollment	Percentage of Total Black Medical Enrollment
1969-70	440	37,960	1,042	2.8%
1970-71	697	40,238	1,509	3.8%
1971-72	1,000	40,620	2,169	5.4%
1972-73	1,200	41,888	2,979	7.1%
1973-74	1,400	43,156	3,834	8.9%
1974-75	1,600	44,265	4,680	10.6%
1975-76	1,800	45,292	5,400	11.9%

We are very fortunate that the Office of Economic Opportunity is aiding in the talent recruitment aspects of our (National Medical Association), Project 75, a program to

increase minority physician output. However, OEO does not actually support minority students financially. Actual financial aid must come from the health professions student loans and scholarships, guaranteed student loans under Title IV of Higher Education Act of 1965, and private sources.

It is also of great interest that over 85% (eighty five percent) of all the minority students in medical school come from family income backgrounds of less than \$10 thousand per year. Some 65 percent of these have family incomes of less than \$5,000 per year and nearly 20 percent come from income levels below \$3,000 per year. Clearly, with these kinds of financial bases and with the medical school costs averaging some \$5,000 per year, it would seem hopeless that the typical minority student would be able to finance his education. To the student, the average cost for his education that he has to find, somehow, is \$5,000 per student cost per year.

We feel that some \$27 million will be needed in just loans per year, by 1975-76 for the minority students and about \$11 million in academic year 1971 through 1972 (fiscal year 1972).

It is clear now that the Civil Rights Act has broken the color line at medical schools, the main barrier for minority enrollment at medical schools is inadequacy of financial aid.

We would project that 1,850 (85% of the 2,169 expected Black enrollments in medical school for the upcoming academic year 1971-72) will come from families under \$10,000 income. The National Medical Fellowships, Inc., (the agency selected by the Interassociation task force to act as a central coordinating body for the multiple sources of financial aid for minority students, to solicit funds for financial aid, and allocate funds under its control on the basis of certified need) has 1,200 applications for student financial aid.

We are very much concerned with funding of the 1,000 incoming medical students in fall of 1971 (academic year 1971-72, fiscal year 1972). While we have not been able to secure a detailed breakdown of the \$47 million which HEW sought for health professions loans and scholarships, we presume that this would be limited to providing loans and scholarships to health professions students (medicine, dentistry, osteopathy, podiatry, optometry, pharmacy and veterinary medicine) who were awarded loans and scholarships prior to June 30, 1971, the expiration date of the existing law.^{1/}

¹ Existing law (42 U.S.C. 294b(a) (in case of health education loans) and 42 U.S.C. 295g(b) (in case of health professions scholarships authorizes appropriations through fiscal year 1974 to enable students who received loans prior to July 1, 1971 to continue their education.) Classes entitled to loans and scholarships under the expiring law include the medical class of 1972 (whose first year enrollment in school year 1968-69 (F.Y. 69) was 9,863, including 278 Blacks); the medical class of 1973 (whose first year enrollment 69-70, was 10,422, including 440 Blacks); and the medical class of 1974, (whose first year enrollment was 70-71, 11,054, including 697 Blacks).

We assume that minorities who were enrolled as of July 1, 1971 and who had received loans or scholarships under the HPEA Loan or scholarship program would be in part covered by the \$47 million in the Budget even though we doubt that HEW intends to sanction loans or scholarships to the statutory maximum.

(We emphasize that the maximum average HPEA Loan has been \$1330 whereas by law there may be a loan up to \$2,500; scholarships have been running at \$930 even though the law sanctions a scholarship up to \$2,500.)

However, as to incoming freshmen, no law covers them. The House has voted a one year extension of existing HPEA legislation, continuing both the loan and scholarship programs. However, as of now there is no authority for loans or scholarships to freshmen.

While we recognize that an appropriations hearing is not the most appropriate forum to discuss the merits of legislation, we believe that an exception could be made. In view of the fact that the legislation expired on June 30, 1971, we are going to have to have some action both by this committee, we would hope, as well as by the Congress.

We would hope we can talk to you both as the distinguished members of the appropriations committee but also Members of Congress called upon to act on this legislation.

We intend to briefly outline the impact of pending legislation upon our goals of Project 75 and future appropriations of the major pending bills before the Congress. These are S. 1183 (an Administration bill which would: (a) eliminate the present health professions loan program, and replace it with a revised guaranteed student loan program geared to health professions students; and (b) continue the existing scholarship program but revise it, starting in fiscal year 1972 (academic year 1971-72) to allocate scholarship grants to schools of medicine, dentistry, and osteopathy on the basis of the number of students from low income or disadvantaged families who are enrolled in a particular school) and H.R. 8629, adopted by House on July 1, 1971, which would continue the expiring health professions loan program for another three years and authorize 135 million dollars in appropriations for loans to health professions students, which would, starting in fiscal year 1973 (academic year 1972-73) to allocate scholarship grants to all health professions schools, on the basis of the number of full time students enrolled who are from low income families.

We would like to emphasize the formulae under which scholarships and loan funds would be allocated; the current law (42 U.S.C. 295g(b)) allocates scholarship aid to health professions schools solely on the basis of student enrollment without regard to the financial need of students in those schools. Under the administration bill this formula would

be changed immediately to one where each school of medicine, osteopathy, or dentistry would be entitled to receive \$3,000 multiplied by the number of students from low income or disadvantaged families. The importance of such a shift this year is apparent when it is recalled that 850 of the expected 1,000 Blacks entering medical school must have a scholarship. The surest way to attain that is for an immediate revision of the scholarship formula, as per S. 1183, coupled with an adequate level of funding. We estimate that for the 850 students in the first year classes we would need \$2.6 million in scholarships, which we urge your committee to appropriate.

The Administration's bill (S. 1183) comes closest to meeting the immediate needs of the students for the fall 1971, who are depending very heavily upon scholarship and loan support, provided it is funded by adequate appropriations. We believe that the Administration's bill (S. 1183) providing for guaranteed loans in addition to being less costly, would also apply loan money more on the basis of need.

The House legislation makes no change with respect to the current loan formula for distribution of loan funds to the various health professions schools, (the current formula which allocates funds without regard to the financial need of students in medical school).

The loan allocation formula set forth in Section 742(b)(2) of the Public Health Service Act (42 U.S.C. 294b(b)(2))² is not changed under the present House bill. Thus, even if the Congress were to fund the health professions loan program at the \$40 million level contemplated in F.Y. 72 under the House bill, a typical 400 student medical school having a high percentage of Black economically deprived enrollment would not receive any more funds than a typical 400 student medical school without a high percentage of economically deprived Blacks, even though it would have need for far more loan money due to the composition of its student body (economically deprived minority students).

In academic year 1970-71, fiscal year 1971 Black enrollment increased by 467 to 1,509 and even though loan support increased to \$13.2 million from the F.Y. 70 level of 8.4 million, it was still necessary to take the problem of lack of Black medical student loans directly to the Secretary of HEW and to consult personally with the President of the United States to secure guaranteed student loans of \$1,500 per year for 300 student supplement loans not available under the direct health professions student loan and scholarship programs.

² Legislation which specifies that the total request of health professions schools for loan funds is greater than the amount voted, the school's share of total loans shall be equal to the product of the amount appropriated and the ratio of such school's enrollment to the total enrollment of all such schools.

In the past year, as you may know, a National Medical Association delegation visited with President Nixon to get a special program worked out to carry some 300 minority students as of last fall who would simply not have been able to enter medical school.

Through the President's efforts, the Department of HEW worked out a special \$1 million guaranteed loan program for minority students administered through the National Medical Association.

If it were to be the will of the Congress to continue the Health professions student loan program then we urge that the loan fund formula be revised so as to give to those schools which have heavy concentrations of low income and disadvantaged minority students sufficient loans and scholarship funds based on enrollment of these aforementioned category of students.

The existing formulae are patently incapable of applying funds on the basis of need of students for financial aid, and to the extent that we may make a recommendation to the appropriations committee we believe that a fairer method of appropriating funds should be adopted.

Thank you Mr. Chairman, I will be glad to answer any question the committee may have.

STATEMENT OF HON. VANCE HARTKE, U.S. SENATOR FROM
INDIANA

FUNDING UNIVERSITY AFFILIATED CENTERS FOR MENTALLY HANDICAPPED
CHILDREN

Senator HOLLINGS. Senator Hartke is here and wants to present some testimony.

We will be glad to hear from you, Senator.

Senator HARTKE. Thank you, Mr. Chairman.

Mr. Chairman, I have requested the privilege of appearing before your subcommittee today for the purpose of urging an amendment to the Labor and Health, Education, and Welfare, and related agencies appropriation bill. Specifically, the amendment which I offer calls an appropriation of \$10 million in fiscal year 1972 for activities authorized by title II of the Developmental Disabilities Services and Facilities Construction Amendment of 1970, Public Law 91-517.

As you know, this is the first Federal legislation that authorizes basic support money under demonstration and training grants to university affiliated centers serving the needs of mentally handicapped children.

NONBUDGETED ITEM

The President has failed to request an appropriation under this act for fiscal year 1972. This grave oversight has been the cause of profound alarm to many of the 20 university-affiliated centers throughout the country, including Indiana's Mental Retardation Development Training Center at Indiana University.

Each of these centers represents a considerable expenditure of State and Federal funds for construction. Some \$3,157,231 in Federal funds are involved in Indiana alone. Now faced with the extremely critical prospect of having basic support money sharply curtailed, many of these centers will be forced to continue operations at a level far below their originally designed program capabilities. Indeed, even now, buildings stand virtually empty in some university-affiliated centers while long waiting lists of mentally retarded children needing immediate attention continue to grow.

FUNDING UNDER TITLE V OF SOCIAL SECURITY ACT

Perhaps the rationale of the President in not requesting an appropriation under title II was that university-affiliated centers for the mentally retarded may receive funding under title V of the Social Security Act. Indeed the President has requested an appropriation of \$13,571,000 for fiscal 1972 as authorized by title V. However, I must point out that these funds are administered by the Maternal and Child Health Service under the Health Services and Mental Health Administration.

According to representatives of that agency, this money has been and will continue to be spent on programs that are health-oriented. If we examine the history of grants that have been given to various university affiliated centers throughout the United States, we find that they have been given to programs having a school of medicine on their campus. Several university-affiliated centers received construction grants for split campus projects.

SPLIT-CAMPUS OPERATIONS

At Indiana University, for example, the Indianapolis campus maintains a center which is involved in the biomedical aspects of mental retardation while the Bloomington campus maintains a center which emphasizes the behavioral aspects of mental retardation. Because all funds under title V are earmarked for health-oriented services, the Bloomington center is not eligible for any core support money under title V—nor is it possible for Indianapolis to share these funds with Bloomington.

It should be pointed out that Indiana is not the only State facing this problem. Alabama has a split-campus project as well as Oregon. The Kansas project is divided among three campuses, thereby creating even greater problems.

PROVIDING CORE SUPPORT FUNDS

If we fail to provide core support funds for these split-campus operations, as well as for the other university affiliated centers, the entire program will be forced into an extremely critical situation. And the real losers will be the many thousands of parents and children who are now experiencing the highly personal tragedy of mental retardation.

EXCERPT FROM STATEMENT OF DR. WISLAND

At this point, I believe it should be mentioned that the university-affiliated centers represent a uniquely creative and innovative approach in dealing with the multidimensional problems caused by mental retardation. This approach has been ably described by Dr. Milton V. Wisland, director of the Indiana University Mental Retardation Developmental Training Center. Dr. Wisland says:

Although personnel are "trained" through the program administered by a university affiliated center, this is not simply a training program. It is interdisciplinary in nature and based on the theory that even as mental retardation itself produces a complex series of problems, so the professionals required to deal with the individual are varied in the nature of their disciplines.

University affiliated centers feel that the physicians, social workers, psychologists, teachers, physical therapists—and community professionals such as clergymen and attorneys—should have an opportunity to receive joint training so that they understand not only the nature of the problem affecting a mentally retarded individual and his parents but also the skills and potential of the other professions whose talents might otherwise go unrecognized.

By training the professionals as teams it is hoped that this sort of teamwork will carry over into the community itself and that the facilities constructed and to be constructed can therefore provide vastly improved services for the retarded and their families.

UNIVERSITY AFFILIATED CENTERS: RESPONSIVE TO NEEDS OF MENTALLY HANDICAPPED

Mr. Chairman, this in brief, describes the concept underlying the university affiliated center. I believe that this approach is clearly responsive to the tremendous need which exists in this country for the development among professional personnel of talent and expertise in dealing with the problems caused by mental retardation.

BUDGET REQUEST

Therefore, Mr. Chairman, I strongly urge this subcommittee to appropriate a bare minimum of \$10 million for fiscal 1972 for the provision of basic support as authorized under title II of the Development Disabilities Services and Facilities Construction Amendment of 1970. It is my conviction that this figure represents a realistic and just assessment of need.

In approving this request we can demonstrate our unequivocal commitment to improving both the quality and the quantity of services available to the mentally retarded and the otherwise developmentally handicapped.

Senator MAGNUSON. Now, Senator, grants for Developmental Disabilities Services and Facilities is divided into two parts. Section A, for which there was \$11,215,000. Is that correct?

Senator HARTKE. Yes.

NONBUDGET FOR SERVICE PROJECT GRANTS

Senator MAGNUSON. And then service project grants for which the budget requested zero.

Senator HARTKE. That is right.

Senator MAGNUSON. Which item are you talking about?

Senator HARTKE. The second one where there is no request.

Senator MAGNUSON. On the formula grants?

Senator HARTKE. That is right.

Senator MAGNUSON. That is the one you are talking about?

Senator HARTKE. That is right.

Senator MAGNUSON. To put back \$10 million would be still less than what we had last year?

Senator HARTKE. Right.

Senator MAGNUSON. I have no further questions.

Senator COTTON. No questions.

Senator MAGNUSON. We are glad to have had you with us and will include in the record the letters you have written about this.

Senator HARTKE. Thank you, Mr. Chairman.

(The letters follow:)

RUSSELL B. LONG, LA., CHAIRMAN
 CLINTON F. ANDERSON, N. MEX. WALLACE F. BENNETT, UTAH
 HERMAN E. TALMADGE, GA. CARL T. CURTIS, NEBR.
 VANCE HARTKE, IND. JACK MILLER, IOWA
 J. W. FULBRIGHT, ARK. LEN B. JORDAN, IDAHO
 ABRAHAM RICHCOFF, CONN. PAUL J. PANNIN, ARIZ.
 FRED R. HARRIS, OKLA. CLIFFORD P. HANSEN, WYO.
 HARRY F. BYRD, JR., VA. ROBERT P. GRIFFIN, MICH.
 GAYLORD NELSON, WIS.

TOM VAIL, CHIEF COUNSEL

United States Senate

COMMITTEE ON FINANCE
 WASHINGTON, D.C. 20510

July 8, 1971

Honorable Warren G. Magnuson
 Chairman
 Senate Appropriations Subcommittee on Labor,
 Health, Education and Welfare
 United States Senate
 Washington, D. C.

Dear Chairman Magnuson:

Thank you for your letter of June 11, in which you responded to my earlier letter of May 13. You will recall in my letter I urged you to support an appropriation of \$10 million in fiscal year 1972 for activities authorized by Title II of the Developmental Disabilities Services and Facilities Construction Amendment of 1970 (PL 91-517).

You responded by pointing out that while the President has not requested an appropriation under this Act, he has requested some \$13 million for University Affiliated Facilities for the Mentally Retarded as authorized by Title V of the Social Security Act. And of this amount, the University of Indiana would receive an estimated \$340,000 in 1972.

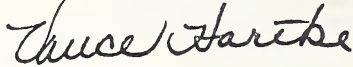
It is this point, I believe, which deserves some clarification. As I understand it, the University of Indiana is one of four universities under this program which maintains a split-campus operation. In the case of Indiana University, the University Affiliated Center for the Mentally Retarded is maintained on the main campus in Bloomington while the health oriented services are maintained at the Indianapolis campus.

As you mentioned in your letter, Indiana University received \$265,000 under Title V of the Social Security Act in 1971. However - and this is the crucial point - all of this money was earmarked for health oriented services. Consequently, the University Affiliated Center at Bloomington, as well as those Centers at the University of Alabama, the University of Oregon, and Kansas University, received no money under Title V in 1971.

In view of the fact that these Centers represent a considerable expenditure of state and federal funds for construction, it now seems both irrational and wasteful to force these Centers to continue operations at levels far below their originally designed program capabilities. Yet this is precisely what will happen if we fail to provide these Centers with general operating monies under Title II. In more explicit terms, our failure to act will mean that buildings will continue to remain virtually empty while waiting lists of mentally retarded children needing immediate attention will continue to grow.

Mr. Chairman, it is my considered judgment that unless money is provided under Title II this year, it will likely never be provided. Therefore, I once again strongly urge your Subcommittee to appropriate a bare minimum of \$10 million for fiscal 1972 for the provision of "basic support" as authorized under Title II of the Developmental Disabilities Services and Facilities Construction Amendment of 1970.

Sincerely,

A handwritten signature in cursive script, reading "Vance Hartke". The signature is written in dark ink and is positioned above the printed name.

Vance Hartke

RUSSELL B. LONG, LA., CHAIRMAN
 CLINTON P. ANDERSON, N. MEX. WALLACE F. BENNETT, UTAH
 HERMAN E. TALMADGE, GA. CARL T. CURTIS, NEBR.
 VANCE HARTKE, IND. JACK MILLER, IOWA
 J. W. FULBRIGHT, ARK. LEN B. JORDAN, IDAHO
 ABRAHAM RIBICOFF, CONN. PAUL J. FANNIN, ARIZ.
 FRED R. HARRIS, OKLA. CLIFFORD P. HANSEN, WYO.
 HARRY F. BYRD, JR., VA. ROBERT P. GRIFFIN, MICH.
 GAYLORD NELSON, WIS.

TOM VAIL, CHIEF COUNSEL

United States Senate

COMMITTEE ON FINANCE
 WASHINGTON, D.C. 20510

July 9, 1971

Honorable Warren G. Magnuson
 Chairman
 Senate Appropriations Subcommittee on Labor,
 Health, Education, and Welfare
 United States Senate
 Washington, D. C.

Dear Chairman Magnuson:

It is my intention to offer an amendment to the Labor, Health, Education, Welfare and Related Agency Appropriation Bill. Specifically, I propose an amendment for the purpose of appropriating \$10 million in fiscal year 1972 for activities authorized by Title II of the Developmental Disabilities Services and Facilities Construction Amendment of 1970 (PL 91-517).

Sincerely,

Vance Hartke
 Vance Hartke

STATEMENT OF HON. CHARLES M'C. MATHIAS, U.S. SENATOR FROM
MARYLAND

Senator MAGNUSON. Senator Mathias could not be here this morning but has sent us his statement which will be entered in the record in full.
(The statement follows:)

Mr. Chairman. I wish to express my appreciation to you and the members of this distinguished subcommittee for giving me this opportunity to make a statement on the vital question of our Public Health Service hospitals and clinics. I am sure that you share with me the sense of urgency over the disposition of these important health resources. Many other senators and congressmen share this concern; almost one-third of the Senate joined in cosponsoring a resolution urging the Administration to continue operating the PHS hospitals and clinics.

As you no doubt know, last March I introduced a \$21 million appropriations bill to assure continued operation of the nation's Public Health Service hospitals.

In my own state of Maryland, concern about the PHS facilities in Baltimore has been so great that the State House of Delegates approved a resolution calling on federal officials not to close any of the PHS hospitals. That resolution was cosponsored by the entire 43-member House delegation from Baltimore City.

A fairly obscure passage in the proposed budget states that the Administration is to consider whether the services offered by the PHS hospitals might be offered elsewhere at a saving to the taxpayers. This seems a perfectly reasonable question to ask regarding any government program. Indeed, all of us want the government to operate as efficiently and economically as possible.

Allow me to quote from the explanation for the request for funds to provide services in new medical facilities: "This figure includes funds to insure that beneficiaries currently served by the eight Public Health Service general hospitals will receive the care to which they are entitled, including care in community facilities or other federal hospitals, at federal expense. This policy includes consideration of the potential for converting the PHS direct care facilities to community use." Since then, we have been assured by top H&W officials that, if no such alternative arrangement can be determined, the President will request a supplemental appropriation to continue the operation of the PHS hospitals.

Increasingly, I think, it has become evident that there is no realistic prospect for making alternate arrangements. The Chairman of the House Committee on Veterans Affairs, Representative Olin E. Teague, some time ago said he doubts the VA hospitals could handle the patient load from the PHS hospitals. And I agree, since VA hospitals themselves need all the help they can get. Indeed, the VA hospital system is already so overburdened in many places that it is

turning away patients whose disabilities are unrelated to their military service. According to the executive vice president of the Maryland Hospital Association, private hospitals in the Baltimore area could not absorb the Wyman Park PHS Hospital's load, which numbers over 115,000 patients annually.

Another alternative which has been under consideration by the Administration, I understand, would be the transfer of PHS hospitals and clinics to community organizations or groups for use as community health facilities. For a number of reasons, this arrangement would be almost as unsatisfactory as closing down the hospitals altogether.

Abolition of PHS control would undoubtedly raise the prospect of a sharp reduction in the hospitals' vitally important public service programs. At present, 35 of the National Cancer Institute's 120 beds around the United States are located in the Baltimore PHS hospital. Continuation of this noted program would be seriously jeopardized by any transfer of hospital control.

Essential teaching, training and other manpower programs would also be called into question. In Baltimore alone, the PHS is involved in a very extensive array of manpower programs, including internships, residencies, and nurse training. The list of their training activities is very impressive indeed.

Nor is the education of doctors and nurses the only manpower issue at stake. As government facilities where everyone is on salary, the PHS hospitals are a good deal less hampered by departmental rivalries than private institutions, and this has made it easier to experiment with new categories of health personnel, such as paramedics for which there is an ever-growing realization of need.

Direct service to the community by the Baltimore PHS hospital is evident in many programs, such as the provision of physicians to city schools and the development and administration of the Maryland Eye Bank.

Another probable result from loss of PHS control would be immediate dislocation of many of the hospital and clinical staff. Not only career civil servants, doctors, and other specialists, but large numbers of minority group staff would be subject to displacement. In Baltimore alone, \$3 million of the hospital's \$7.2 million annual payroll goes to black and other minority group employees.

What makes the fate of the PHS hospitals all the more critical, I think, is the recent enactment of the Emergency Health Personnel Act, which calls upon the Public Health Service to attack health problems in the ghetto and other doctor-shortage areas.

President Nixon is to be commended for requesting the full \$10 million authorized for this innovative program. But as has been aptly said, it would be a cruel irony for the Administration to move now to undercut the PHS hospitals at the very time when Congress had enacted this new health manpower legislation to meet the country's most desperate needs.

One justification given for shaking off PHS control, we understand, is that the facilities are underutilized and do not serve a broad enough segment of the population. This, rather than being a problem, represents an opportunity. The present low occupancy can be turned to advantage for the care of the indigent.

Several PHS hospitals are eager for such assignments. After setting up a health evaluation service the Baltimore hospital could be ready to serve an indigent population of 25,000, according to its director, Dr. Edward J. Minnan. This plan, which has the enthusiastic approval of the Baltimore City Health Department, would provide ambulatory care to a black neighborhood which now has but one doctor and no dentists or drugstores.

There has of course been a great deal of talk about the poor state of PHS facilities. Further use of them would undoubtedly require extensive modernization. But the cost-factor, whether channelled through the PHS or through local authorities, would be essentially the same. The only question about modernization, then, is just how much longer we must wait.

A very significant question, relating to cost, is that of per diem expense. The average cost per day in PHS hospitals is \$65 to \$70, which includes everything from doctors' salaries and laboratory tests to X-rays and drugs. The average daily charge in other hospitals, however, is something on the order of \$95 to \$115 for room and board alone. Transfer of control over these hospitals, taking them out of the hands of the PHS, might thus cost the government more, rather than less.

For all these reasons, and indeed many more, the wisest course of action, I think, would be to retain PHS operational management over all their hospitals and clinics. Not only would this accord with the five-year-old recommendations of a prestigious Presidential Science Advisory Committee, it would maintain an essential basis for extending, through the Emergency Health Personnel Act, critically needed health services to our nation's ailing poor.

STATEMENT OF HON. BILL ALEXANDER, MEMBER OF CONGRESS, FIRST
DISTRICT OF ARKANSAS

Senator MAGNUSON. Also, we have a written statement submitted by Congressman Alexander of Arkansas regarding the Hill-Burton hospital program which will be included in the record.

(The statement follows:)

Mr. Chairman and members of the subcommittee, I sincerely appreciate your giving me this opportunity to appear before you on a matter which I believe to be of tremendous importance to states like Arkansas and to districts like the First District which I represent.

The area of consideration to which I would like to direct your attention is the funding of in-patient hospital construction -- particularly general hospitals. Specifically, I refer to the Hill-Burton Grant Assistance Program.

It is my understanding that the Administration is proposing that in the future all federal assistance on projects of this kind take the form of guarantees for loans.

Both Secretary of Health, Education and Welfare Elliott Richardson and Director of the Office of Management and Budget George Schultz, have provided me with their explanations of the reasoning behind this proposed change. While I am sure that you have heard these arguments, I will capsule some of what has been said, because it is pertinent to my testimony here today.

Mr. Schultz told me in a letter of May 11, that:

"Through Hill-Burton grants, except for areas of rapid population growth, national shortages of in-patient beds have been virtually eliminated. . .

". . . The growth of third party paymenst (e.g., private insurance, Medicare and Medicaid) to cover the operating costs, including depreciation,

Hon. Bill Alexander

of hospitals has improved the ability of these institutions to finance needed capital improvement through borrowing."

That may be true, but I think Mr. Schultz would be hard pressed to convince most persons in Arkansas that it is.

There are many persons from my own North and East Arkansas area who must travel many miles, some more than 100, to Little Rock, Arkansas, Memphis, Tennessee, or Springfield, Missouri for hospitalization.

In a letter to me on March 5, Dr. J.T. Herron, Arkansas State Medical Officer, wrote that his office had on hand requests for assistance during the next fiscal year totaling \$25,588,000. He added that the total allocation to the state for the last fiscal year was 2.5 million dollars and that even less, 2.3 million, was expected for this fiscal year.

In the quarter of a century that the Hill-Burton hospital construction grant program has operated, funding assistance for only 8,297 beds has been made available in Arkansas.

Ours is admittedly a state of gradually increasing prosperity -- but still certainly among the less affluent of the nation. Its people face no fewer difficulties -- and some of them face many more -- than the millions of other residents in the nation who fear acute illness because of the frighteningly high costs of medical care.

On May 5, Secretary Richardson wrote me:

"It is hoped that by providing incentive and support for the development of alternatives to in-patient care, the present rate of inflation

Hon. Bill Alexander

of medical costs will be at least moderated."

I am told, though, by Arkansas medical officials that this guaranteed loan program would result only in further rapid escalation of the cost of hospital care because the loan payments would have to come from patient fees. To comply with the Administration's recommendation would, I believe, be a tragically, short-sighted break of faith with the American people.

As I have noted, many in Arkansas alone have taken the 1970 extension of the Hill-Burton program in good faith. An excellent example of the spirit of cooperation and determination with which they face their needs is found in the White River Medical Center project which would be located at Batesville, Arkansas.

Several thousand persons from six counties have banded together to raise \$900,000 in voluntary contributions as their share of a 3.5 million dollar medical facility. This money would be combined with federal funds from the Hill-Burton grant program and from the Ozark Regional Commission.

Their donations ranged from \$2 to several thousand. Abolition of the in-patient hospital grant program could doom their hopes for a healthier future.

Are the members of this subcommittee, indeed, of the Congress, really willing to say to people of this faith and dedication, "Sorry, we've changed our minds. Too bad about your needs. Too bad the guaranteed loan program will raise the cost of your hospitalization. We've decided to

Hon. Bill Alexander

abandon a workable, viable approach to improving medical care, in favor of the current favoritism of concentrating on preventative medicine and post-hospitalization care facilities."

Let me emphasize that I do not oppose the establishment of preventative medicine, out-patient, or post-hospitalization facilities. But, preventative medicine is not always successful. And, having an extended care unit within easy reach is going to be of little comfort to the acutely ill patient who has to travel many miles to a hospital.

I would urge in the strongest possible terms that this subcommittee and the Committee on Appropriations recommend to the Congress that it authorize and fund the operation of both grant and guaranteed loan programs for hospital construction. This would help alleviate a critical situation in areas like some of those I represent.

STATEMENT OF DR. CARLETON B. CHAPMAN, CHAIRMAN, COUNCIL OF DEANS, ASSOCIATION OF AMERICAN MEDICAL COLLEGES

ACCOMPANIED BY:

DR. JOHN A. D. COOPER, PRESIDENT, ASSOCIATION OF AMERICAN MEDICAL COLLEGES

JOSEPH S. MURTAUGH, DIRECTOR OF THE AAMC DEPARTMENT OF PLANNING AND POLICY, ON BEHALF OF THE ASSOCIATION OF AMERICAN MEDICAL COLLEGES

INTRODUCTION OF WITNESS

Senator MAGNUSON. Dr. Chapman.

Dr. Chapman comes from New Hampshire. The Senator from New Hampshire will introduce him to us.

Senator COTTON. Mr. Chairman, I am very happy to welcome Dr. Chapman here today. He is the dean of the medical school at Dartmouth and a personal friend of mine. I am gratified and proud that he represents the Association of American Medical Colleges.

Incidentally, he is doing some things at Dartmouth medical that I am sure meet with the enthusiastic approval of this committee. Among other things, condensing, without taking away from the thoroughness of the preparation, condensing time somewhat in producing physicians. I assume he plans to tell us about that among other things.

We are glad to have you here, Dr. Chapman.

INTRODUCTION OF COLLEAGUES

Senator MAGNUSON. We are glad to have you here. Will you introduce your colleagues for the record.

Dr. CHAPMAN. Thank you very much, indeed, Mr. Chairman and Senator Cotton.

I am here as the spokesman for the Association of American Medical Colleges. This is in my capacity as chairman of the Council of Deans which is a constituent organization of the AAMC. I like to think that it is the key constituent organization, although there is sometimes some argument about that.

I am accompanied by Dr. John Cooper on my right, full-time president of the association, and Mr. Joe Murtaugh, who is our director of the Department of Planning and Policy Development.

The association is made up of 102 medical schools in operation in the United States and something like 400 of our major teaching hospitals, also 47 academic biomedical societies which together encompass the teaching and research facilities of the Nation's academic health centers.

Now we have as an organization an abiding interest not only in medical education, but also in the training of large numbers of individuals in the related health professions and occupations and in addition to that with a substantial portion of the medical and health research efforts going on in the Nation.

We are contributing in a critical and indispensable way to the improvement of community health services and to the direct provision of medical and health care to large numbers of our citizens.

I make these points, Mr. Chairman, merely because we like to show that we do have a deep and direct involvement in the many programs whose appropriation requests this subcommittee is now reviewing.

PREPARED STATEMENT

We have prepared a rather extensive and documented statement which, with your permission, I would like to put in the record. Then I should like to proceed to take up only two of the major topics in that.

Senator MAGNUSON. We will put this in the record in full.

(The statement follows:)

The Association of American Medical Colleges welcomes this opportunity to appear before the subcommittee during its consideration of the Fiscal Year 1972 President's budget for the health programs of the Department of Health, Education and Welfare.

I am Carleton B. Chapman, Dean of Dartmouth Medical School, and am presenting this statement on behalf of the Association of American Medical Colleges in my capacity as chairman of the Council of Deans, a constituent organization of the AAMC. I am accompanied by Dr. John A. D. Cooper, the full-time president of the AAMC, and Mr. Joseph S. Murtaugh, the director of the AAMC Department of Planning and Policy Development.

The Association of American Medical Colleges is comprised of the 102 medical schools in operation in the United States, more than 400 of the nation's major teaching hospitals, and 47 academic societies which encompass the teaching and research faculties of the nation's academic health centers.

* A statement presented by Carleton B. Chapman, M.D., Dean of the Dartmouth Medical School and Chairman of the Council of Deans, before the Labor-HEW Subcommittee of the Senate Appropriations Committee, July 15, 1971.

The constituent institutions and organizations of the Association are concerned not only with medical education, but also with the training of large numbers of individuals in the related health professions and occupations; as well as with a substantial portion of the medical and health research effort of the nation. These institutions also contribute in a critical and indispensable way to the improvement of community health services and to the direct provision of medical and health care to large numbers of American citizens. The Association and its membership thus have a deep and direct involvement in the many programs whose appropriation requests this subcommittee is now reviewing.

BIOMEDICAL RESEARCH

First, I should like to speak to the appropriation requests for the research programs of the National Institutes of Health. As already noted, research is a key function of academic health centers. A measure of that effort is provided by the fact that almost one half of all federally supported medical research in the country takes place in the laboratories and clinics of academic health centers. It is this broad-ranging scientific effort that undergirds the whole advance of medicine and health care in the nation.

The problems that focus on the question of how to provide better health services to the American people are now a major area of public discussion. As yet there is no consensus as to the best course for the nation to follow.

But in the midst of the strenuous debate on the best way to correct the ills of our health service system, there are certain fundamental propositions which stand out very clearly:

- ... The great progress in medicine since World War I has been the direct consequence of progress in basic medical research and improvement in medical technology.
- ... These advances have transformed our overall prospects for health and have radically changed the character and effectiveness of medical care and health services.
- ... Despite the considerable progress that has been made, there remains a huge mass of disease, disability, and premature death that is potentially controllable.

These problems consume a substantial portion of the nation's health expenditure, impose a great burden of suffering and sorrow, and deny society the full potential of the skills, talents, and productivity of millions of people so afflicted. Some minimal dimensions of this burden are reflected by the fact that:

- ... People under sixty-five generate two-thirds of all short-term hospital days.
- ... Forty-four percent of the entire population suffers from some degree of disability due to chronic disease.
- ... Fifty percent of all deaths are below age 70, the biblically allotted life span of man.

The basic reason for this mass of disease, disability, and death is the simple fact that we do not possess sufficient fundamental knowledge to prevent, cure, or treat the health problems involved.

Further advances in knowledge gained through research can make possible definitive and effective solutions to problems with which we must now cope in a limited and palliative manner. Such advances can substantially reduce the economic, social and human costs involved.

Entirely apart from humanitarian considerations, it is impossible to ignore the enormous savings in dollars, that must ultimately come from the taxpayer, that have resulted from basic research. Also apparent is the fiscal folly of pausing when the battle is only half won. I offer two examples in evidence:

Poliomyelitis

In the twenties, disastrous polio epidemics went unchecked at intervals through our nation. The only treatment we had was sympathy and sedation. Most who developed breathing trouble died. Then came the iron lung, an ingenious device that tided some victims over breathing crises. But the cost of the apparatus, and the large staff required to operate it, were such that almost no one could pay for such services out of income or savings. The burden fell almost entirely on the taxpayer; and the end-results were indifferent. The development of means to stop polio in its tracks came from basic research, much of which depended on Congressionally appropriated funds. For each dollar spent on basic polio research, the taxpayer got a return that cannot easily be calculated. But it was enormous.

Tuberculosis

Then take tuberculosis. Early research showed that prolonged bedrest, pneumo-thorax, and other measures, would lower the mortality exacted by the disease. In 1945 there were 75,000 beds in the country

for patients with tuberculosis. Most of those beds were supported from tax funds. Today, hospitals for tuberculosis are disappearing and the disease itself, once the nation's main killer, is no longer listed even among the first ten causes of death. Some of this was due to better economic conditions. But the most determining reason came from basic research which led to a means of curing tuberculosis by means of drugs.

In each of these instances, the half-way technology, desirable as it was at the time, imposed a great burden in operating costs and human suffering, in substantial contrast to more comprehensive and more fundamental solutions achieved through continued scientific effort.

We now stand at similar half-way points in respect to many other health problems where present medical capability, impressive as it may be in contrast to what went before, is still crude, enormously expensive, and exacting much human anguish. Consider:

- ... The treatment of kidney failure through dialysis machines because of our limited understanding of kidney disease.
- ... The recourse to cardiac transplants because of our inability to prevent heart disease.
- ... The insulin treatment of diabetes mellitus which, while extending life, really obscures systematic deterioration, the control of which awaits greater knowledge of the origins and nature of the basic disease process.

In these and many other areas, the state of scientific advance places us at the threshold of a new order of medical capability which can dramatically diminish the economic, social, and human burdens involved. In many other areas, and unfortunately cancer is among them, there is the long and uncertain process of continued advance in fundamental science before we are able to reach a level of insight and understanding that

will provide the greater therapeutic and preventive capability we all so desperately seek.

Thus, our ultimate hope for modifying the health prospects of the nation rests heavily on continued advance of the biomedical sciences. This progress, in turn, is dependent upon the level and direction of support for research provided through the programs of the National Institutes of Health, as reflected in the appropriations requests before this committee.

These estimates are a matter of much concern to the institutions and the research community which we represent here today. The Administration's 1972 budget for the Research Institutes and Divisions of the NIH is a cut-back budget despite the rhetoric and arithmetic presented to the subcommittee in official testimony.

For Fiscal Year 1971 the Congress appropriated \$1,203,646,000 for NIH research programs, including supplemental appropriations for pay increases. For these same programs the President is requesting \$1,191,841,000 for Fiscal Year 1972, or \$11,805,000 less than the appropriated level in Fiscal Year 1971. It should be emphasized that the President's request includes \$8.5 million for pay increases -- not programs -- thus raising the Fiscal Year 1972 shortfall in terms of program activities to \$20,337,000.

True, the President has provided an additional \$100 million for a new special Cancer Initiative which brings the net change up to a plus \$88,195,000. The fact remains, however, that for the basic

continuing programs of the NIH the President is requesting substantially less money for Fiscal Year 1972 than the Congress made available for Fiscal Year 1971.

This contrast in levels of funding comes into a sharper focus on an Institute-by-Institute basis as shown by the following summary data:

<u>Program Reductions:</u>	(Amounts in Thousands)
National Institute of General Medical Sciences	-15,922
National Institute of Neurological Diseases and Stroke	-10,130
National Institute of Arthritis and Metabolic Diseases	-3,891
National Institute of Allergy and Infectious Diseases	-3,720
Biologic Standards	-171
Fogarty Center	<u>-317</u>
TOTAL REDUCTION	\$34,151
<u>Program Increases:</u>	
National Cancer Institute	+2,104
National Heart and Lung Institute	+1,044
National Institute of Child Health and Human Development	+8,197
National Institute of Environmental Health Services	+4,466
National Institute of Dental Research	+3,198
Division of Research Resources	+1,793
National Eye Institute	<u>+1,544</u>
TOTAL INCREASES	\$22,346
Net Change in Institute Programs	-11,805
Special Cancer Initiative	<u>+100,000</u>
TOTAL CHANGE	\$88,195

The true measure of the extent of the cutback in biomedical research funding which the Administration budget will impose emerges only after examining the erosive effect of the price-wage inflationary spiral upon the actual level of research activity that will be supportable in Fiscal Year 1972.

But it cannot be in the public interest to pursue budget policies which progressively reduce the level of scientific effort in medicine. Yet this is exactly what is happening as a consequence of the failure to offset the effect of inflation on the level of research effort. We believe Fiscal Year 1969 represents a good base year against which to compare the level of research activity the President's 1972 budget will permit. Funding levels in Fiscal Year 1969 were a consequence of the normal course of the executive and legislative budget process, in contrast to Fiscal Year 1970, when the President's veto and subsequent Congressional across-the-board cuts confused the issues. Program levels in Fiscal Year 1969 were also a consequence of considerable retrenchment and consolidation from the high point of research funding reached in Fiscal Year 1967.

To maintain in Fiscal Year 1972 the same level of research and research training activity that existed in Fiscal Year 1969, allowing a minimum of 6 percent per year increase for inflation, will require a budget for research and research training grants that is \$152.2 million

higher than the President's request provides. We urge that the subcommittee view this increase as the minimal level of additional funds required for these vital research programs in Fiscal Year 1972. It should be pointed out that this increase does not provide at all for the added costs of biomedical research due to the increasing sophistication of equipment, technical services, and staffs now required for further scientific advance. As one pushes the frontiers of knowledge back, each additional step requires ever greater effort.

In addition to these overall cutbacks, the Administration's budget plans for Fiscal Year 1972 hit hardest at what constitute the vital "seed crop" programs of the NIH:

1. The Fellowship and Training Grant programs of the NIH will be cut by a total of \$37 million below the appropriated level for these programs in Fiscal Year 1971. NIH graduate fellowship and training grant programs constitute the basic national investment in the young minds and ideas that will shape the future of medical education and research. Only through these programs will new investigators required for such major research efforts as the attack upon cancer be made available. In like manner, the nation's efforts to expand medical education and the training of health manpower is almost completely dependent upon the additional faculty that will derive from these training efforts. Reductions in these vital programs of the magnitude proposed in the President's budget will only serve to thwart the other national objectives being sought.

We are aware that the Administration explains part of this reduction in training programs by referring to a so-called "*transfer*" of \$23 million from training grants to institutional support programs under health manpower appropriations.

We believe this to be misleading. The effect of this so-called transfer is clearly to reduce the training grant programs of the several Institutes. The use of the funds within the Bureau of Health Manpower Education, although welcome additions to those appropriations, cannot be considered to serve the same vital purposes which constitute the particular role of the Institutes' training grant programs.

The handling of the training programs of NIH seems incomprehensible in the context of proposals for major expansion in cancer research, in human reproduction and population control, in research into blood abnormalities, and in the area of virology, which has provided such promising insights into the role of viruses in cancer and other major diseases.

Where are the trained investigators who must mount these expanded efforts to come from? Where are the new faculty members to staff the nation's efforts to expand medical education and increase the supply of physicians for the nation to be found? Training programs have, for the past decade or so, been the main encouragement to the training of both types in adequate numbers.

2. The General Research Support Program of the NIH will be cut \$11.5 million below the level of funding established for this program in Fiscal Year 1971. The general support for the research and research training programs of medical schools provides funds which can be used at the discretion of the institution in the development of new programs, providing initial support for young investigators, undertaking pilot projects and feasibility studies, and supporting centralized facilities and services needed by multiple investigators.

These funds thus greatly multiply the value of appropriations specifically directed to the support of research projects.

Phasing out of this program, which seems to be the Administration's purpose, will substantially impair the effectiveness of our entire medical research structure.

3. Funds available for new and competing research grants will be cut almost \$10 million below the level set in Fiscal Year 1971 appropriations. It is these new research grants that encompass the new ideas and the new men which so often constitute the leading and innovative edge of advance in biomedicine. This reduction denies access to these new men and ideas and thus diminishes the scope of scientific thought and enterprise directed toward health problems.

4. I am sure the committee is probably weary of the constant emphasis upon and repetition of the axiom that only through the advance of basic knowledge can we hope to achieve eventual mastery of premature death and the major diseases and causes of disability in man. It stands in singular contrast, in respect to the comprehension of the Administration of this vital point, to view the budgetary proposals for

the National Institute of General Medical Sciences. The Fiscal Year 1972 budget for this Institute has been set at a level of \$15.9 million below the amount that Congress appropriated in Fiscal Year 1971. In addition, the programs will have suffered further erosion as a consequence of the inflationary process. It is the programs of this Institute that provide support for all of the basic biomedical science underlying the purposeful efforts of the categorical institutes. Slashing NIGMS programs in the manner proposed by the Administration seems definitely counter-productive in the context of the Administration's avowed proposals to undertake major new research initiatives.

We urge that the committee restore the funding levels of these vital programs to at least their 1971 level.

We also urge that the committee accept as a principle the maintenance of the Fiscal Year 1969 level of research effort as supported through research and research training grants as the minimal base of scientific activity on which our national health effort vitally depends.

We fully support all of the proposed special research initiatives set forth by the Administration if they are not administered in a way that will tend to impair the fundamental base of activity to which reference has been made.

To maintain the 1969 level of research activity needed to provide for further program development in key areas will require a Fiscal Year 1972 appropriation level for NIH Research Institutes and Divisions of \$1,491,841,000, an increase of \$200 million over the President's request.

We submit a table for the committee's consideration which presents our recommended levels of funding for NIH programs in detail. They are the most responsible recommendations we are able to devise and we respectfully request careful consideration of them by the committee.

As a final note in my comment on research appropriations, I should like to point out that the proposals made by the President and in the Congress to increase our research efforts in the field of cancer have furnished a setting for the American people to express their recognition of the importance of biomedical research and their concern about the level at which it is being supported. But cancer is merely one case in point. There are, in fact, other efforts in progress to control diseases and threats which, collectively, are probably as distressing and burdensome to our people as cancer. Among these are the programs of the National Heart and Lung Institute to control heart disease; there is also the work of the National Institute of Child Health and Human Development in population research as authorized by the Family Planning Services and Population Research Act of 1970; and there are the imaginative studies of the National Institute of Dental Research on the causation and control of dental cavities.

Obviously, it is not reasonable to attack all known ills to which the human flesh is heir simultaneously and with equal emphasis. But it is our carefully considered conviction that the American public is in agreement with us with regard to reconsidering our priorities and halting the decline in our biomedical research efforts. Further degradation in that effort, whether or not we rapidly succeed in effectively guaranteeing the right to health by reorganizing our system for delivery of health services, is simply not

defensible on the basis of the established record. It will take relatively little further attrition to reduce the programs of the National Institutes of Health to a routine and uninspired state. On the other hand, if this should happen, it will take years and billions of dollars to rebuild it to the point where it can, once again, take the lead in strengthening and maintaining the fundamental foundation -- which is biomedical research -- on which the nation's health inevitably rests.

HEALTH MANPOWER AND TRAINING

One of the key objectives necessary for achievement of improved health and well-being of our country's people is expansion of the nation's health manpower and facilities.

The key manpower element is the availability of physician services. The demand for physician services has increased tremendously in the past 10 years. Yet the national increase in U.S.-trained physicians has barely kept pace with population growth and we are currently dependent upon the addition of 2,000 foreign-trained physicians per year to our doctor pool in our effort to keep pace with the demand for medical services. There is clearly a national shortage of physicians; the current estimates put the shortage at about 50,000. Yet over the past 10 years, medical schools have lacked adequate space and operating budgets to expand as rapidly as necessary in order to provide these additional physicians.

Despite the limited scope of the present Health Professions Educational Assistance program and the fact that appropriations have always been substantially below authorizations, the HPEA program has made an important contribution in expanding the nation's capacity for medical education. In 1963 at the time of the passage of the HPEA Act, there were 87 U.S. medical schools with an entering class of 8,772, a total enrollment of M.D. candidates of 32,001 and a graduating class of 7,335. In 1970-71, eight years later, the nation has 102 medical schools admitting students (an increase of 15, with 12 more schools in development). First-year classes totalled 11,360 (an increase of 2,588); the total number of medical students was 40,333 (an increase of 8,332);

and the number of graduates was about 8,996 (an increase of 1,661). The chart on page 19 (Federal Support for Medical Education and Medical School Entering Class Size) shows the increase in the entering class of M.D. candidates in relationship to the federal funds available.

These figures are impressive evidence that given some measure of additional federal support, the nation's medical schools can respond.

This year, Congress is considering new health manpower legislation which, when enacted, will modify and extend the Health Professions Educational Assistance Act. The legislation has yet to emerge in final form. But even at this stage, it seems likely that the final legislation will constitute a major step toward recognizing our medical schools as a national resource. Both the House and the Senate bills contain provisions for a substantial increase in Federal financial support for medical schools. If the legislation that is finally enacted is anywhere near the terms of the current bills, it will constitute a clear affirmation of the intent of this nation to greatly augment the Federal role and investment in medical education.

In the past the failure of appropriations to meet authorization levels has been, we believe, a major constraint upon the capability of American medical schools to respond to national objectives for increasing health manpower. The current consideration of health manpower legislation by both houses of Congress has provided a re-affirmation of these objectives and a directive for an even greater and more urgent attack upon them.

We therefore appeal to the committee to recommend appropriations of the full amounts authorized for the critical programs of construction, student assistance and institutional support in the finally enacted health manpower legislation. For the Congress to set one measure of need in major, substantive legislation and to reject that measure in subsequent appropriations would constitute a most damaging contradiction in our nation's effort to meet the health crisis.

I should like now to speak to the component programs involved in the nation's health manpower effort.

Construction Assistance

Since the passage of the Health Professions Educational Assistance Act in 1963, the cumulative total of the annual appropriations provided for the construction of teaching facilities for the health professions through fiscal 1971 amounts to \$809.7 million. Corresponding authorizations amount to \$1.05 billion. It is generally agreed that at the time of enactment those authorizations were regarded as barely adequate to meet the needs then perceived, let alone the needs of the present day.

As a consequence of the failure to provide adequate funding for the present construction programs, the entire program of planned construction by the nation's health professions schools has been brought almost to a halt. The costs for constructing those facilities that are necessary to mount educational programs are rising at a rate of 1 percent to 2 percent per month. At the present time, we are informed that the backlog of approved but unfunded applications for construction assistance in all the health educational, research and library programs totals about \$1 billion. For medical educational facilities, this backlog

totals \$614 million. All of the applications represent an enormous effort plus the commitment of millions of dollars of matching funds obtained only under great difficulty, and which, because of inaction, are in danger of being withdrawn.

If the medical schools are to do the job of increasing their enrollment at a rapid pace, they must be able to expand their existing facilities at a similar pace or else the job cannot get done. The schools desperately need more classrooms, more lecture halls, and more facilities for self-instruction.

In addition, there is a growing need for extensive renovation and replacement of the aging buildings which some of the older schools of the health professions are forced to utilize. More than half (54 out of 102) of the medical schools in the country today were organized before 1900. The development of new programs of medical education and the current emphasis on training associated with ambulatory care are rapidly making many medical educational facilities obsolete. Some can be rendered serviceable by renovation; some now need replacement. In either case, federal financial assistance is essential for the schools to meet the heavy costs that are involved.

Not only do the medical schools require the expansion of existing facilities and the replacement of obsolescent ones, but, if the facts are to be accorded any weight, the nation needs to build some completely new schools; for instance, there are still five states in the nation without medical schools. The prestigious Carnegie Commission on Higher Education has called for the establishment of at least nine new medical schools in addition to those new schools that are now under development. And the Association's Committee on the Expansion of Medical Education

called for the development of 12 new schools by 1976.

It is frankly impossible to meet the present construction requirements of medical education at the old levels of inadequate funding. In view of the economics involved, and the urgent task ahead of meeting the nation's need for physicians, the Association asks that the subcommittee recommend full funding of the construction grant program. The Association recognizes the very great likelihood that a new construction-assistance program of loan guarantees and interest subsidies will be included in the final version of the new health manpower legislation. Such a new program can serve as a valuable supplement to assistance provided through outright grants. However, the Association urges that loan guarantees and interest subsidies be viewed only as a supplement, and not as an alternative. Only through the full utilization of both programs of construction assistance, and the appropriation of funds to activate approved but unfunded projects can freezing the much-needed future expansion of the physical plant of medical education be avoided.

Institutional Support

Health professional education has always been the most expensive area of higher education; costs have increased at a substantial rate throughout the post-war period. The inflationary price-wage trend has, of course, been an important factor in these increases. Perhaps of greatest influence, however, has been the effect of the vast changes in the functions, programs, and services involved in present-day medical education. These changes are impressively reflected in the magnitude and diversity of the activities of the present-day academic health

center. Thus, present-day medical education is enveloped in an extraordinarily complex and inter-related set of educational, research, and service activities serving many public needs. This process of expansion has been supported through many diverse sources, including federal funds.

There have been two salient consequences of this development:

- ... The rate of change has been so rapid that serious instabilities have been introduced into the fiscal situation of the medical centers.
- ... The whole structure of the academic health center is so unitary that any diminution of support for one of its programs must have immediate and pervasive effects upon the integrity of the entire structure and its capability to perform its many other functions.

This is the dilemma which the American medical schools confront today: operating costs have risen at unprecedented and unanticipated rates; federal and non-federal support for basic operating budgets have lagged seriously behind the increase in expenses; and the substantial and heretofore stable flow of funds for research support is being cut back.

Basic operating support at an adequate level is the most critical need of medical schools. The financial crisis that has been predicted for so many years has arrived at last -- and with a vengeance. All across the country, medical schools find themselves in severe financial situations. If the current conditions are allowed to persist, the ultimate result will be a grave impairment and deterioration of the programs of all schools. In desperation, the nation's medical schools are looking to the federal government for a commitment of substantial and continuing basic support necessary for their very survival.

In the past, the institutional and special project grant programs of the HPEA Act have provided the only direct federal support to offset the increasing operating costs of medical schools, thus enabling them to expand their enrollments and to improve their educational programs. In short, the institutional and special project grants have been a lifeline of sustenance for the advancement of medical education. However, the lifeline has had a knot in it. Since the inception of these programs in 1966, actual appropriations have fallen far short of the minimal needs reflected in the authorized appropriations: \$388,051,000 appropriated versus \$485 million authorized.

The area of institutional support clearly has been singled out in the pending health manpower legislation for important modifications and vastly increased levels of funding. Both houses of Congress, for the first time in the history of the program, have agreed to authorize separate appropriations for formula grants and special project grants, discarding the old practice of a single authorization which left to the HEW Secretary the hard decision of allocating the funds.

Currently, federal support for the basic operating expenses of medical schools averages \$1,500 per student per year. This is comprised, on the average, of \$600 per student per year provided through a basic improvement grant and \$900 per student per year through a special project grant. Although the special project grant program has been thought of generally as a program of federal assistance for imaginative innovation in medical education, the disastrous financial condition of many of our medical schools has forced the diversion of special project grant funds, with the government's permission, into support of basic operating expenses, simply to survive.

In Fiscal Year 1970, for example, 66 percent (\$22.9 million) of the HPEA Act special project grant funds awarded to medical schools went to meet some condition of financial distress. Financial distress grants were made to 61 of the 102 medical schools in Fiscal 1970. Obviously the current level of federal support for basic operating expenses is substantially below the level required to sustain sound financial operation of a medical school in the face of mounting social and economic pressures. It is thus essential that the level of support be raised significantly.

The pending health manpower legislation before the Congress provides for a substantial increase in the level of federal support -- in the neighborhood of 16 percent to 25 percent of the cost of educating a medical student. The Association urges the full funding necessary to implement whatever authorization levels emerge from this legislation.

The Association appreciates that full furling of the predictable levels of institutional support would call for a significant increase in appropriations. But we hold that such an increase is essential if our nation's medical schools are to meet the challenges confronting them.

Student Assistance

Adequate financial assistance for medical students is an inseparable part of the problem of expanding medical school enrollment. The Association is committed to the view that such expansion should be based on the principle that all qualified students should be given a place in a medical school.

A major effort is now being made to increase the matriculation into medical education of students from minority and disadvantaged backgrounds. This problem has recently been submitted to intensive study by a group representing physicians, hospitals, minority groups, and medical educators. The group's report emphasizes that long-standing, arbitrarily imposed barriers to full equality of opportunity for the pursuit of careers in medicine must be promptly eliminated. To that end the report sets the goal of quadrupling (2.8% to 12%) the proportion of minority students in medical classes by 1975. It goes on to identify the main barrier to minority student enrollment as the inadequacy of available financial aid.

Congressional action so far on the health manpower legislation indicates an understanding of the problem of inadequate financial aid and a willingness to increase substantially the maximal annual assistance; from the current \$2,500 per student to \$3,500 per student, for both loans and scholarships. In addition, there is at least a possibility that a program of loan guarantees and interest subsidies may be included as a supplement to loan assistance. The need for such increased assistance becomes readily apparent after considering increases in tuition, room and board, and books. Compared to a 40-percent increase in student aid that would be provided by an increase to \$3,500, tuition has risen more than 50 percent from the 1964-65 academic year to the 1972-73 academic year. The figures for the increase in room, books, and other essentials are similar.

A full-scale attack on the problem of inadequate student financial assistance will not be possible, however, without full funding of the program of student loans and scholarships. For example, despite the current annual maximum loan and scholarship award of \$2,500, chronic inadequate funding of the two programs has sharply reduced the percentage of students assisted and the actual level of per student assistance. The percentage of the total requests that have been met by HPEA Act loans for medical students has fallen from a high of 98 percent in Fiscal 1967 to 27 percent in Fiscal 1971; And the percentage of students assisted has dropped from a high of 37 percent in Fiscal 1968 to 14 percent in

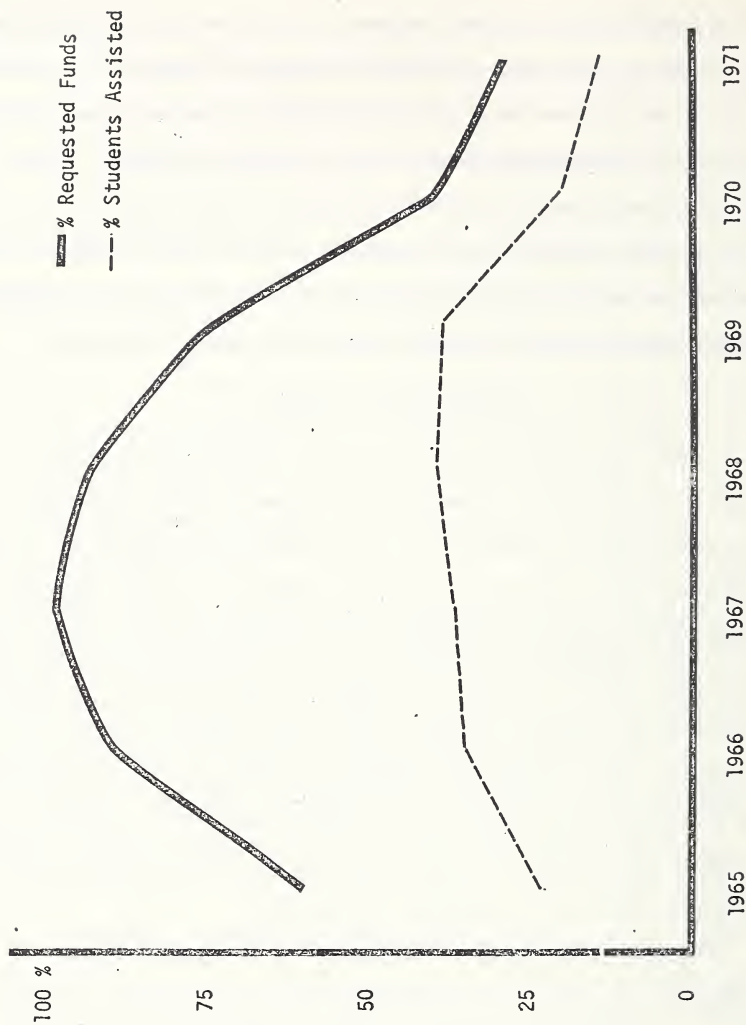
Fiscal 1971. Those declines in student assistance are shown graphically in the chart (HPEA Loans for Medical Students) on page 29. In Fiscal 1971, it is estimated that the average HPEA Act loan per student assisted was \$1,221; the average scholarship per student assisted was \$912. To raise these levels of student assistance to more adequate levels will require increased appropriations. The Association urges the subcommittee to provide the full appropriations necessary to carry out the final Congressional mandate for health professions student assistance.

PUBLIC HEALTH MANPOWER

While the number of schools of public health and the number of students enrolled has increased over the years, federal support for the schools and the students has not increased proportionately. The Administration's public health manpower budget for Fiscal Year 1972 proposes only a \$39,000 increase over the \$18.475 million appropriated in Fiscal Year 1971, and this increase is targeted for direct operations only with no increases proposed for the traineeship and project grant programs. The 1972 amounts proposed for these two programs represent an increase of only \$400,000 and \$100,000 respectively over the amounts actually appropriated in Fiscal Year 1969, or a total increase for both programs of less than 3 percent in four years.

Because of increases in tuition and in the cost of living generally, coupled with increasing enrollments in schools of public health, a 3-percent increase in federal funding in four years represents an absolute decrease in the amount of money available to the schools and the students. The Association, therefore, is quite disturbed by the Administration's public health manpower budget for Fiscal Year 1972 and strongly recommends that it be increased from \$18.514 million to \$23.5 million, with all of the increases devoted to the traineeship and project grant programs, and that the \$543,000 proposed for

HPEA LOANS FOR MEDICAL STUDENTS



direct operations remain unchanged.

ALLIED HEALTH MANPOWER

Perhaps the most frustrating and confusing situation among allied health educators today is the inconsistency of the Federal Government in stating that the country needs more health manpower, that this is the year for health; and, yet, not recommending more support for the education and training of a large portion of the needed manpower.

Since the Allied Health Professions Personnel Training Act was signed into law in 1966, funding has changed very little. Indeed, many of the categories in this legislation never have been funded. Additionally, funding of Basic Improvement Grants on a formula basis never has been at the 100 percent level of qualification, and appropriations for construction supplied matching funds for only five or six projects before the appropriations were dropped entirely. Awards under the Basic Improvement formula grants have represented the only general support for educational programs in the allied health professions. Now the Administration is asking that no funds be appropriated in this category. It is proposed, instead, that all funds to improve the quality of training be placed in the Special Improvement category and be awarded only on a project basis.

A survey by the Association of Schools of Allied Health Professions of institutions which have had experience with the Allied Health Professions Personnel Training Act and are involved in allied health education revealed the strong need for continuation of formula grants. The colleges and universities as well as the hospitals where educational programs are situated represent the most knowledgeable group in regard to

the needs of education and training for the allied health professions and occupations. It is on the basis of this knowledge and experience that it is felt that the most urgent need is the full funding of the authorization levels. Thus we recommend an \$8-million increase over the President's budget for allied health manpower.

NATIONAL LIBRARY OF MEDICINE

I should now like to say a few words in support of the program of the National Library of Medicine.

The advance of medical education and research, and particularly the improvement of medical care and health services, is heavily dependent upon the prompt and accurate communication of the latest scientific information stored in such a way as to allow for easy access by the entire biomedical and health community.

The National Library of Medicine and its programs stand at the center of this process. The enormous collection of medical writings held by the library, its world-wide acquisition program, coupled with its bibliographic activities, notably the Index Medicus and MEDLARS, constitute the basic intelligence process of medicine not only for the United States but for the world medical community.

At the request of the NLM, the Council of Academic Societies of the AAMC undertook a study of the potential of new communication technology

in medical education, its implication for health care delivery, and the action that should be taken in light of the conclusion reached. The report of this study has been recently submitted to the NLM and is entitled "Educational Technology for Medicine - Role for the Lister Hill Center!" If this report has not been received by the committee, I am sure that the Director of the Library would be happy to provide copies.

The basic conclusion reached in this study was that the National Library of Medicine, through the Lister Hill National Center for Biomedical Communications should undertake a major effort to bring the full capabilities of modern communications technology and concepts to bear upon medical education, research, and the processes of health care delivery. The eventual objective of this effort is to render obsolete the current system of libraries, text books, medical school curricula and instruction methods, and the present total dependence upon memory and pattern recognition in clinical decision making and problem solving. Only through such a transformation in the present process of information handling and communication methods will it be possible to manage and apply the vast scope and great complexity of biomedical knowledge and technology. To accomplish this necessary revolution will require a substantial strengthening of the Lister Hill Center and the National Medical Audiovisual Center.

Unfortunately, the National Library of Medicine has struggled over the years since its creation with a thoroughly inadequate funding base. The President's budget for 1972 would provide \$21,981,000 for these important programs, a level that is less than the support available in 1970 and 1971, if inflation is taken into account.

The Association of American Medical Colleges proposes an increase

in this level of support to \$24,481,000, or \$2.5 million over the President's budget.

HEALTH SERVICES AND MENTAL HEALTH ADMINISTRATION PROGRAMS

Up to this point in its statement, the Association of American Medical Colleges has focused its attention on those NIH programs which have a direct impact on the nation's academic health centers. The Association recognizes, however, that its scope of concern includes the entire effort aimed at improving health services available to the people of this nation.

The whole national effort to strengthen and expand medical education and to advance scientific knowledge and capability in the medical sciences through research is meaningful only as it helps to create a body of health services which can assure that the health needs of the American people will be met; in other words, that every person will have the opportunity to achieve the maximum possible physical and mental well being. The academic health centers and teaching hospitals are an integral part of this process. Beyond their traditional role of training health manpower and conducting research, the medical schools through their teaching hospitals, clinics and medical care programs, are now involved directly in the community health scene.

Consequently, the functions and goals of the academic health centers of the nation are in considerable measure dependent upon the activities of many of the federal programs funded through appropriations for the Health Services and Mental Health Administration. In many of these areas the AAMC does not have the detailed knowledge of the program status and need comparable to our understanding of the research and manpower programs of the NIH. Therefore, the Association

welcomed the formation of, and has become an active participant in, the Coalition for Health Funding. The Coalition is an informal, ad hoc coming-together of a group of organizations which have great expertise in health and health education and a major concern for the funding levels of the nation's health activities. Guided by the recommendations of the Coalition for Health Funding, which the AAMC fully supports, we should like to express the need of those HSMHA programs which have direct impact upon academic health centers.

Mental Health

The President's budget for the National Institute of Mental Health totals \$499,451,000, some \$111 million over the 1971 level of support. We question whether this is an adequate level of effort to deal with one of the most critical health problems confronting the American people. There is no evidence that the incidence of mental illness is on the wane. We still lack the basic understanding of the origin and biological nature of mental disorder. In the absence of definitive therapeutics, we are solely dependent upon increasing skill in the management of the mentally ill and chemical suppression of adverse manifestations of the disease.

In the face of these basic limitations in our therapeutic capability to cope with mental illness we believe the levels of funding for mental health research to be inadequate. Similarly we consider the cut-back in mental health manpower development programs to be incompatible with the expanding need for trained mental health manpower, both for research and for staffing of community mental health facilities.

We therefore support recommendations of the Coalition for Health Funding for adding \$130 million to the President's budget for the

National Institute of Mental Health.

Health Services Research and Development

The National Center for Health Services Research and Development provides the leadership and support to extend the same kind of scientific approach to solving the problems of health service that has already been so successful under NIH in advancing the scientific understanding of disease and in developing new therapeutic approaches. In view of the critical need for innovation and new approaches to providing health care, the level of support for this program in the President's budget is pitifully small.

We concur in the Coalition recommendation of a \$10-million increase in the President's request for the National Center for Health Services Research and Development.

Regional Medical Programs

Regional Medical Programs have been the center of the national effort to link the medical schools and other centers of scientific and academic medicine to the framework of health institutions and services in a regional area to broaden the availability of the latest advances in diagnosis, therapy, and other medical capability. Providing a bridge between the world of the medical sciences and the community health scene has been the central theme of Regional Medical Programs from the beginning. It has provided the means for medical schools and teaching hospitals to extend their capability to the solution of community health problems and to provide training and technical assistance and at the same time expose scientist and academician to the real problems of community health.

The further forging of this set of relationships is vital to the overall advancement of the quality of health services and must not be

threatened by financial strangulation, which seems to be the objective of the Administration in cutting the budget support for this program in half. We urge a modest increase above the Fiscal Year 1971 level of funding for Regional Medical Programs as recommended by the Coalition for Health Funding. To accomplish this, an increase of \$50 million above the President's disastrously low Fiscal Year 1972 request will be required.

Medical Facilities Construction

Teaching hospitals provide the setting for the education of medical students, interns, residents, nurses, technologists, therapists, and health aides in a wide range of disciplines and occupations.

Expanding the capacity of hospitals to participate in the education of such health personnel is an essential element of the national effort to increase health manpower.

The need of hospitals to renovate or replace existing facilities or build new ones, as well as the need for the construction of new hospitals, continues to be a high priority requirement in expanding the health resources of the nation.

For financing this needed hospital construction, the Administration is proposing that major dependence be placed upon guaranteed loans and interest subsidies. This imposes a major handicap upon the needed expansion of hospital construction.

The problem in financing hospital construction arises mainly from the fact that hospitals are non-profit organizations, being reimbursed for their services most frequently on a cost, or less than cost, basis. The economics of such a situation prevent the accumulation of a surplus. Depreciation charges, when received, most often must be used for renovation or for

maintenance of existing plant equipment rather than for modernization or expansion of plant facilities.

Debt financing directly affects the cost of care since payments of principal and interest must be included in the hospital charge structure. Further, several state statutes prohibit borrowing and/or funding or depreciation by state institutions.

Therefore, it is essential that an appropriate balance be maintained between debt financing and governmental grants-in-aid.

With that in mind, the Association of American Medical Colleges finds the \$108.9 million Presidential request for medical facilities construction in the Health Services and Mental Health Administration completely unrealistic and inappropriate to the task. The Association, therefore, concurs in the increase of \$100 million in grant funds over the President's request, to raise the appropriations to \$208.9 million as recommended by the Coalition for Health Funding.

We have summarized in the attached table our recommendations for those Health Services and Mental Health Administration programs to which we have spoken in this testimony. In respect to the other Health Services and Mental Health Administration programs, we support the appropriation recommendations of the Coalition for Health Funding.

We are fully aware of the enormous task before the subcommittee in assessing the many recommendations for appropriation increases presented to it. It is, indeed, an awesome labor and a grave responsibility. I would urge that you approach this process from the point of view which Dr. John A. D. Cooper, President of the Association of American Medical Colleges, expressed on the occasion of the public announcement of the objectives of the Coalition for Health Funding:

"A greater magnitude of federal support is imperative if we are to make rapid and substantial progress toward overcoming the many barriers that stand between the American people and good health.

"Unfortunately, it is common practice to view increases in health expenditure with alarm and concern, as though they represented a major economic burden. In contrast, increases in expenditure in almost every other area of our national economy are greeted with pleasure and called economic progress.

"The time has come for this nation to realize that support of health care is not an economic burden; it is a measure of social advance.

"Indeed, the extent to which a nation provides health care for its people is not a measure of its charity, but of its humanity."

This, Mr. Chairman, completes my prepared statement. We should be pleased to respond to any questions you or the other members of the subcommittee may wish to ask.

Thank you.

APPROPRIATIONS FOR SELECTED NIH PROGRAMS

[In Thousands]

PROGRAM	FY 1971 ACTUAL LEVEL	PRESIDENT'S BUDGET FY 1972 CHANGE FROM FY 1971		AAMC RECOMMENDATIONS INCREASE OVER PRES. BUDGET	
		AMOUNT 1/		AMOUNT	
RESEARCH INSTITUTES					
Biologic Standards	\$ 9,127	\$ 8,956	\$ -171	\$ 8,956	\$ ---
National Cancer Institute	232,234	234,338	2,104	234,338	---
National Heart & Lung Inst.	194,448	195,492	1,044	235,492	40,000
National Inst. Dental Research	35,631	38,829	3,198	43,829	5,000
National Inst. Arthritis and Metabolic Diseases	139,324	135,433	- 3,891	160,433	25,000
National Inst. Neurological Diseases & Stroke	106,651	96,521	-10,130	131,521	35,000
National Inst. of Allergy & Infectious Diseases	103,062	99,342	- 3,720	114,342	15,000
National Inst. of General Medical Sciences	166,322	150,400	-15,922	190,400	40,000
National Inst. of Child Health & Human Development	95,035	103,232	8,197	133,232	30,000
National Eye Institute	31,095	32,639	1,544	32,639	---
National Inst. Environmental Health Sciences	20,805	25,271	4,466	27,271	2,000
Research Resources	66,276	68,069	1,793	76,069	8,000
Fogarty International Center	3,636	3,319	-317	3,319	---
Special Cancer Initiative	---	100,000	100,000	100,000	---
TOTAL RESEARCH	\$1,203,646	\$1,291,841	\$ 88,195	\$1,491,841	\$200,000
Public Health Manpower	18,475	18,514	39	23,514	5,000
Allied Health Manpower	19,486	26,494	7,008	34,494	8,000
National Library of Medicine	21,207	21,981	774	24,481	2,500

1/ Includes provision for pay and program increases requested after submission of January budget.
AAMC/DPPD 7/7/71

Recommendations of the AAMC
For Selected Programs of the Health Services
and Mental Health Administration
1972 Budget Estimates^{1/}
(In thousands)

Program	FY 1971	FY 1972		AAMC Recommendation Amount	Increase over Pres. Budget
		Pres. Budget Amount ^{2/}	change from 1971		
Mental Health					
Research	\$117,026	\$119,342	\$ 2,316	\$119,342	-0-
Manpower Development	122,160	119,065	- 3,095	139,065	20,000
State and Community Ass't.	150,922	223,231	72,309	333,231	110,000
Other Programs	34,002	34,594	592	34,594	-0-
Total	386,104	499,451	111,347	629,451	130,000
Health Services Research and Development	57,626	62,070	4,444	72,070	10,000
Regional Medical Programs	106,809	52,771	- 54,038	102,771	50,000
Medical Facilities Construction	185,285	108,877	- 76,408	208,877	100,000
Loan Authority	40,000	30,000	- 10,000	30,000	-0-

^{1/} Detail may not add to total because of budget adjustments.

^{2/} Includes provision for pay and program increases requested after submission of January budget.

AAMC - DPPD
7/7/71

HEALTH MANPOWER AND TRAINING

Dr. CHAPMAN. I would like to turn first to the question of health manpower and training.

Senator MAGNUSON. Now what page on your full statement do you discuss that?

Dr. CHAPMAN. That is on page 17.

Senator MAGNUSON. We can follow you a little better.

Dr. CHAPMAN. For the purpose of saving the time of the subcommittee, we have condensed it.

Senator MAGNUSON. I understand.

Dr. CHAPMAN. Senator Cotton, much as I would like to talk about Dartmouth, I am afraid as spokesman for the association I would give offense to some of the other medical schools.

Senator COTTON. Well, I will talk about it. [Laughter.]

Dr. CHAPMAN. The first is the question of the shortage of physicians. Current estimates, of course, put it at about 50,000. Yet, over the past 10 years, medical schools have lacked adequate space and operating budgets to expand as rapidly as necessary in order to provide these additional physicians.

Despite the limited scope of the present health professions educational assistance program and the fact that appropriations have always been substantially below authorizations, the HPEA program has made an important contribution in expanding the Nation's capacity for medical education.

In 1963 at the time of the passage of the HPEA Act, there were 87 U.S. medical schools with an entering class of 8,772, a total enrollment of M.D. candidates of 32,001 and a graduating class of 7,335. In 1970-71, 8 years later, the Nation has 102 medical schools admitting students, an increase of 15, with 12 more schools in development.

First-year classes totaled 11,360, an increase of 2,588; the total number of medical students was 40,333, an increase of 8,332; and the number of graduates was about 8,996, an increase of 1,661.

Now that represents a 25 percent, roughly 25-percent increase in total number of medical students and about a 20-percent increase in the number of graduates.

Now we offer these figures as evidence that given some measure of additional Federal support, the Nation's medical schools can and will respond to the national need.

This year, as has been pointed out, Congress has under consideration new health manpower legislation which, when enacted, will modify and extend the Health Professions Educational Assistance Act considerably.

The legislation, as our chairman has pointed out, has yet to emerge in final form.

Senator MAGNUSON. I might say I think the two bills are not very far apart. They should not have much trouble in conference.

Dr. CHAPMAN. We are gratified.

But even at this stage, it seems that the final legislation will constitute a major step toward recognizing the medical schools as a major natural resource.

The House and Senate bills contain provisions for a substantial increase in institutional support for medical schools. If the legislation

that is finally enacted is anywhere near the terms of the current bills, it will constitute a clear affirmation of the intent of the Nation to augment significantly the Federal role and investment in medical education and in health education in general.

In the past the failure of appropriations to meet authorization levels has been, we think, a major constraint on the capability of American medical schools to respond to national objectives for increasing health manpower.

The current consideration of health manpower legislation by both Houses provides a reaffirmation of these objectives and the directive for an even greater and more urgent attack on them.

We appeal to the committee to recommend appropriations of the full amounts that will be authorized in the HPEAA as it finally emerges.

We would like to point out, too, that for the Congress to set one measure of need in major substantive legislation and then to reject that measure in subsequent appropriations would, for us, create a very damaging and confusing situation, and we think it would create it for the Nation's entire effort to meet the health crisis.

Now a word about the three specific components of the pending health manpower legislation.

First, there is the matter of construction assistance. Since the passage of the original HPEAA in 1963 the cumulative total of the annual appropriations provided for the construction of teaching facilities for the health professions through this fiscal year 1971 amounts to about \$809 million. Authorizations for the corresponding period amounted to \$1.05 billion.

As a consequence of the failure to provide adequate funding for the present construction programs, the entire program of phase construction by the Nation's health professions schools has been brought almost to a halt.

The cost for constructing these facilities and other health educational programs are rising at a rate of 1 to 2 percent per month.

At the present time we are informed that the backlog of approved but unfunded applications for construction assistance in all the health educational, research, and library programs come to about a billion dollars. For medical educational facilities alone the backlog is around \$614 million.

Now all of the applications represent an enormous effort plus the commitment of millions of dollars of matching funds obtained only under great difficulty and which, because of inaction, inability to go forward with these plans, those matching funds are in many instances in danger of being withdrawn.

I would like to point out, too, that more than half of the Nation's medical schools were organized before 1900. The development of new programs of medical education and the current emphasis on training, associated with ambulatory care are rapidly making many medical educational facilities obsolete. Some can be rendered serviceable by renovation. Some now need replacement.

In either case, Federal financial assistance is essential for the schools to meet the heavy costs that are involved.

In addition, the Nation needs to build some completely new schools. For instance, there are still five States that have no schools at all. The Carnegie commission report on higher education recently called for

the establishment of at least nine new medical schools in addition to those schools that are now under development but that are not yet ready to admit students.

Our own organization sets the number of new schools needed at something like 12. In view of the economics involved and the urgent task ahead of meeting the Nation's need for physicians, our association asks that the subcommittee recommend full funding of the construction grant program.

The association recognizes the very great likelihood that a new construction assistance program of loan guarantees and interest subsidies will be included in the final version, of course we don't know this, but we are told that it is likely.

We would like to point out that such a new program can serve as a valuable supplement to assistance provided through outright grants. In our view it is only through the full utilization of both programs of construction assistance and the appropriation of funds to activity-approved but unfunded projects can our planned program of expansion of health education be kept barely in line with the actual need.

I would like to turn——

Senator MAGNUSON. Before you do that, what is the average percentage of matching funds if the Congress should give you Federal construction? What is the matching, local matching fund?

Dr. CHAPMAN. It varies, Senator. One-to-one is the most usual.

Senator MAGNUSON. Fifty-fifty?

Dr. CHAPMAN. Yes, sir.

Senator MAGNUSON. Because there would be, I would say, some opposition to total grants, full Federal grants, on the money end of it in one respect, but should we establish a Federal medical college, we would have them doing that. We don't want to have that trend. You are correct, we ought to put more in the construction if there is available matching.

Dr. CHAPMAN. Yes, sir.

Senator MAGNUSON. That can be stimulated in your State legislatures or in your private schools where you have the chance of getting the Federal funds; and then supplement that with a program of some guaranteed loans such as we do for college dormitories. That is a good example of it. That is bricks and mortar. That program was very successful.

Dr. CHAPMAN. That is exactly what we ask. And other features in universities, where there are medical schools.

Senator MAGNUSON. Now, the good Senator from New Hampshire and myself have always felt that we should have more construction funds for many of these items in this bill. We have been a little bit frustrated in the past few years in that we appropriate them and then they are frozen.

Dr. CHAPMAN. We understand.

Senator MAGNUSON. It seems to me with the new bill and a greater awareness this year of the need in health manpower, that we might be able to do a little more in construction, coupled with what we heard here just recently on the scholarships and fellowships. Even that is not going to catch up with the need. We have been focusing, which I am sure you people would agree, on the auxiliary fields in medicine and dentistry and a program now to see if we cannot encourage returning

war veterans who have been corpsmen in the war to continue and help out because we are not going to produce enough doctors in the foreseeable future. We just don't have the plants to turn them out.

So, we will take a look at it and see what we can do on this construction item.

But we do have another problem. The State legislatures lag pretty much in the State institutions. I find if you put the carrot out there, they finally try to catch it.

Dr. CHAPMAN. It makes a big difference.

Senator COTTON. You mentioned, Doctor, that the matching funds varied, the majority being 50-50. How do these formulas vary?

Dr. CHAPMAN. I think Mr. Murtaugh can answer that.

Mr. MURTAUGH. In the expiring bill there was a provision for two-thirds matching for major expansion of new schools and for all other construction it was on a 50-50 matching basis. Both the House and Senate bills that have been passed permit 75 percent matching for new schools or major expansion, and in the case of the House bill a lower percentage for replacement.

So the formulas vary with whether you are a new school or undertaking major expansion of your class size.

Senator MAGNUSON. You realize that everyone who comes up here on education and on health wants the full authorization. Now that is Alice in Wonderland. There is not enough money down in the whole Treasury to take care of the full authorizations. You would have to have triple the amount in the Treasury for any given year and use it for nothing else to make a full funding of every bill that has been passed out of the Labor and Welfare Committee.

Of course, that is the responsibility of the Appropriations Committee, subject to our capabilities and subject to, with all due respect to the budget, what they will spend. So you have to cut the cloth that way.

Senator COTTON. Of course, the final total of the authorizations running from 1971 through 1976 of the bill we passed last night is just under \$6 billion.

Senator MAGNUSON. I wish we could get that kind of money.

Mr. MURTAUGH. That is indeed for all purposes including construction, not just for construction.

Senator MAGNUSON. Then you get priorities within priorities, and then you run into a lot of trouble and feuds between different groups as to who is going to get the biggest part of the pie. I think that on health manpower, if anyone can't realize the priority of that, well, they just don't know what the facts are.

If there is any crisis in health, it is delivery of health, is it not?

Dr. CHAPMAN. Yes, sir.

Senator MAGNUSON. That is manpower?

Dr. CHAPMAN. In part.

Senator MAGNUSON. I merely say, speaking not for Dartmouth, but for the University of Washington, too, that we will do the best we can on this construction item consistent with the cold facts of life around here on money.

Dr. CHAPMAN. Thank you, sir.

I would like to say a word or two about another provision of the health manpower legislation. That has to do with institutional sup-

port in the form of per capita grants. Of course, basic operating support at an adequate level is really the most critical needs of the medical schools at the present time.

I am on page 24, Senator. The financial crisis that has been predicted for so many years is with us, and it is with us with a vengeance. All across the country our schools find themselves in very severe financial situations in terms of operating funds.

If the current conditions are allowed to persist, the ultimate result will be a grave impairment and deterioration of the programs of all schools. Institutional and special project grants have been a kind of lifeline of sustenance for the advancement of medical education in the last few years, but there has been a flaw in it since the inception of these programs in 1966.

Actual appropriations again have fallen far short of the minimal needs reflected in authorized appropriations. That is \$388 million appropriated versus \$485 million authorized. The area of institutional support clearly has been singled out in the pending health manpower legislation for very important modifications and increased levels of funding.

Both houses for the first time in the history of the program have agreed to authorize separate appropriations for formula grants on the one hand and special project grants on the other.

Currently Federal support for the basic operating expenses of medical schools averages about \$1,500 per student per year. This is made up of 600 for students provided through a basic improvement grant.

Senator MAGNUSON. Give me an example. When you quote the figure \$1,500 for institutional support, just what does that involve?

Dr. CHAPMAN. It involves these two programs. The basic improvement grant system is available to all medical schools. It is a formula grant. That is amounting currently to \$600 per student per year in all the medical schools.

Senator MAGNUSON. But institutional support, what does that comprise?

Dr. CHAPMAN. We are using it here to refer specifically—

Senator MAGNUSON (interrupting). How do you use it?

Dr. CHAPMAN (continuing). To the per capita proposal per student.

Senator MAGNUSON. How do you use it as it relates to the student, institutional support?

Dr. CHAPMAN. What we are doing with it, and I think what most medical schools are doing with it, is spending it primarily on teaching salaries and support of teaching, accessories, development of self-learning devices. It is all going in the teaching side.

Mr. MURTAUGH. This covers the educational cost, the cost to the institution providing the education for the student.

Senator MAGNUSON. It could be allocated to a broad spectrum of costs?

Mr. MURTAUGH. Yes, indeed.

Senator MAGNUSON. Mainly you say it is teaching.

Mr. MURTAUGH. Yes; right.

Dr. CHAPMAN. I feel sure over the country it would be easily identifiable as spent on teaching purposes.

Senator MAGNUSON. But there is a latitude to use it for any kind of institutional cost that has some connection with the educational program of medical students?

Mr. MURTAUGH. That is right.

Senator COTTON. Does that include laboratory equipment?

Dr. CHAPMAN. Only if it is used for teaching, Senator. We could not use it to buy research equipment of any kind.

There are a lot of facts and figures, I think, that we might mention here, but I would like, Senator, to again telescope this a good deal more in the interest of saving time.

The pending health manpower legislation before the Congress provides for a substantial increase in the level of Federal support up to something like 16 to 25 percent of the actual cost of educating a medical student. Now we urge the full funding necessary to implement whatever authorization levels emerge from this legislation and of course we don't yet know what that will be.

Senator MAGNUSON. Right there, I think you people ought to understand that an authorization sometimes is open-ended and sometimes it goes on for a period of 2 or 3 years. It does not necessarily mean if you are authorized a million dollars on a program that you would get anywhere near a million dollars. It might be a 2-year program or 3-year program, as long as the authorization does not expire.

So the reason that some of these figures are astronomical in authorizations, a lot of them are looking down the line where we have to deal every year between midnight on June 30 and next July 1, and hold ourselves within that level.

Mr. MURTAUGH. May I add one word? I think Dr. Chapman did not finish answering your question. The other part of the \$1,500 the schools are receiving on the average for the basic support of their educational program comes from special project grants. Now, these were originally intended to serve the schools, by the innovation of curricula, developing new approaches to education.

However, because of the financial distress of the schools the NIH has had to use them largely to bail out schools that were on the brink of disaster. Therefore, most of the special project money has gone into that.

If you average the amount over the country, \$1,500 per student, not every school gets that much. Some get more. The new authorization, the capitation in the new bills, in the House it is \$2,500, in the Senate \$4,000. We want to make sure it is understood that at the present time the schools are getting about \$1,500 a student, and this is not sufficient to keep them out of financial difficulties.

So, the House bill on which the authorizations do not vary very much from what you would calculate to be needed for all the health professions at the capitation rate is what we think almost a necessity if we are going to bail out the 61 schools that are in a severe financial distress and the other health professional schools that are in similar trouble.

In other words, the House authorization level—the Senate is higher, but at the House level it is barely enough to cover the \$500 per student and \$2,500 is not significantly larger than the schools are getting today.

Senator COTTON. I have here the justifications on project grant institutions report sent up by the Department. I recognize that you feel and we feel that their increases are inadequate, but it does define in a sense how it can be used.

I think it should go in the record at this time. The justification says: "The requested increase of \$17,450,000 over the 1971 level of \$100,550,000 will provide broad-range assistance to all health professional schools (1) to increase enrollments, (2) to improve faculty and curricula, (3) to alleviate the difficulties of schools in serious financial straits."

Now that is a fairly correct summary of the purposes for which this money, whatever amount is eventually given, will be used, is that right?

Dr. COOPER. Right.

Dr. CHAPMAN. Dr. Cooper's point was that the money is actually expended, the greater proportion of it has gone for the latter purpose, namely, to assist schools in financial distress.

Senator MAGNUSON. Go ahead.

Dr. CHAPMAN. If I may, I would like to say one word about student assistance. We are still talking about the health manpower proposals. We agree in the main with what Dr. Kenney and his colleagues representing the National Medical Association have had to say. Our association is committed to the view that every qualified student should be given a place in a medical school, and in our own organization we have been working a great deal on this question of what to do about minority and disadvantaged students.

A recent report originating within our own association recommended the quadrupling of the percentage of those students that are now admitted. That is 3 percent to something like 12 percent.

It goes on to identify the main barrier to minority student enrollment as inadequacy of available student aid funds.

Senator MAGNUSON. What is the ceiling now, \$10,000 family income?

Mr. MURTAUGH. Yes, sir.

Senator MAGNUSON. Do you like that figure?

Mr. MURTAUGH. The problem with a fixed figure as an upper limit, although most of the scholarship funds are used for students from low-income families, there are situations where a family may have an income of \$15,000, less able to support a student in medical school than one making \$10,000.

The reason being they may have five children in school, they may have a grandfather and a grandmother in a nursing home.

Senator MAGNUSON. We have been discussing that. We want to keep the real disadvantaged in there. We don't want to cut that down at all, but maybe we are hurting the middle-income groups in this case.

Dr. COOPER. We would hope that the legislation would provide support for exceptional financial need.

Senator MAGNUSON. There is an escape clause for special cases. It makes it so difficult for a person to get aid if he needs it if he is over \$10,000, and even if he is a special case, to get through this.

I think we ought to take a good long look at a fixed figure. This is why I asked the question.

Dr. CHAPMAN. Yes, sir. Of course, Congressional action so far on health manpower legislation does indicate a great understanding of the problem of inadequate financial aid and a willingness to increase substantially the maximum student assistance. The need for such increased assistance, of course, is quite readily apparent when we consider what has been happening to tuition, room and board, books and so on, com-

pared to a 40 percent increase in student aid which is currently proposed, tuition has risen more than 50 percent since 1964-65, and other costs, rooms, books, so forth, are comparable.

A full-scale attack on this problem of inadequate student financial assistance won't be possible without again full funding of the program of student loans and scholarships. For example, despite the current maximum annual loan and scholarship award of \$2,500, chronic inadequate funding of the two programs has sharply reduced the percentage of students actually assisted and of course the level of per student assistance.

The percentage of the total requests that have actually been met by HPEA Act loan funds for medical students has fallen from a high of 98 percent in fiscal 1967 to 27 percent in fiscal 1971. The percentage of students actually assisted has dropped from a high of 37 percent in 1968 to 14 percent in 1971.

Now in fiscal 1971 it is estimated that the average HPEA loan per student assisted was \$1,221. The average scholarship per student assisted was \$912. To raise these levels of a student assistance to more adequate levels will require increased appropriations.

We urge the subcommittee to provide the full appropriation necessary to carry out the final congressional mandate for health professions student assistance, whatever that may be.

I would like to turn, sir, to the one other major topic we would like to discuss. It is one which has been discussed before this committee many times. There are some new angles. I refer to biomedical research in NIH.

Senator COTTON. What page?

Dr. CHAPMAN. We are on page 2.

Senator MAGNUSON. You want these charts in the record, too?

Dr. CHAPMAN. Yes, sir. The appropriation request for the research programs of the national institutes of course are before us.

As already noted, research is a key function of academic health centers. A measure of that effort is provided by the fact that almost one half of all federally supported medical research in the country takes place in the laboratories and clinics of academic health centers. It is this broadranging scientific effort that undergirds the whole advance of medicine and health care in the Nation.

The problems that focus on the question of how to provide better health services to the American people are now a major area of public discussion. As yet there is no consensus as to the best course for the Nation to follow.

But in the midst of the strenuous debate on the best way to correct the ills of our health service system, there are certain fundamental propositions which stand out very clearly:

The great progress in medicine since World War I has been the direct consequence of progress in basic medical research and improvement in medical technology.

These advances have transformed our overall prospects for health and have radically changed the character and effectiveness of medical care and health services.

Despite the considerable progress that has been made, there remains a huge mass of disease, disability, and premature death that is potentially controllable.

Some of the dimensions of this burden are reflected by these facts. First, people under 65 actually generate two-thirds of all the short-term hospital days. Second, 44 percent of the entire population suffers from some degree of disability due to chronic disease. Third, 50 percent of all the deaths in the Nation occur below age 70. Now the basic reason for all these problems, this mass of disease, disability and death, is the simple fact that we don't possess sufficient fundamental knowledge to prevent, cure, or treat the health problems involved.

Now entirely apart from humanitarian considerations—it is impossible to ignore the enormous savings in dollars—dollars that must ultimately come from the taxpayer—that have already resulted from basic research. It is also apparent how foolish in the long run it really is to pause when, in many instances, this battle is only half won. I offer two examples in evidence.

Take polio. In the 1920's there were disastrous polio epidemics which ranged unchecked at intervals throughout the country. The only treatment we had at the time was sympathy and sedation. Most of the patients who developed breathing troubles died. Then came the iron lung. This was an ingenious device that tided some victims over breathing crises but the cost of that apparatus and particularly of the large staff it required to operate it was such that almost nobody could pay for such services out of income or savings. The burden again fell almost entirely on the taxpayer, and even so the end result was not altogether satisfactory. The development of means to stop polio in its tracks, which again spared the taxpayer this great burden of expense, that development came from basic research, much of which depended on congressionally appropriated funds.

Senator MAGNUSON. That came out of the Science Foundation fund.

Dr. CHAPMAN. Some, yes, sir. It came from a number of sources. For each dollar spent on basic polio research the taxpayer got a return you can't calculate easily but it was enormous beyond any question.

Tuberculosis is another case in point. Research sometime after the turn of the century showed that prolonged bed rest, pneumothorax and other measures lowered the mortality of that disease. As late as 1945, we had 75,000 tuberculosis beds in the United States. Most of those beds again were supported from tax funds. Very few people could afford, themselves, to pay for the prolonged sanitarium care that was necessary at that time. But today hospitals for the tuberculosis are disappearing. The disease itself, which was once the Nation's main killer, is no longer listed among the first 10 causes of death. Some of this was due to better economic conditions and other factors, but the most determining factor came from the basic research that led to a means of curing the disease by means of drugs.

In each of these instances, the halfway technology, desirable as it was at the time, imposed a great burden in operating cost and human suffering in substantial contrast to the more comprehensive and more fundamental solutions achieved through continued scientific effort.

We now stand at similar halfway points in respect to many other health problems where present medical capability, impressive though it may be, is still proving enormously expensive, and causing much human anguish. There are several cases in point.

Consider the treatment of kidney failure through dialysis. It is a remarkable achievement. It is costly. It is not to be compared to the advantages which will accrue when we learn to prevent kidney disease.

By the same token, the question of open heart surgery and cardiac transplants may be very impressive, but they are themselves imposing great costs on the taxpayer and other segments of the economy and they certainly are not to be compared to the situation that will be at hand when we learn to prevent heart disease, something which we cannot do without a great deal further research.

Now, our ultimate hope for modifying the health prospects of the Nation rest heavily on continued advance of the biomedical science. This progress in turn is dependent upon the level and direction of support of research provided by the programs of the NIH as reflected in the appropriation request before this committee. These estimates are a matter of concern to the institutions and the research community which we represent here today. That is an understatement. It is a grave concern.

The administration's 1972 budget for research institutes and division of NIH is a cutback budget despite the rhetoric and arithmetic presented to the subcommittee in official testimony.

For fiscal year 1971 the Congress appropriated \$1.2 billion for NIH research programs including supplemental appropriations for pay increases. For these same programs, the President is now requesting \$1.192 billion for fiscal 1972, of \$11.8 million less than the appropriated level in fiscal 1971.

It should be emphasized that the President's request includes \$8.4 million for pay increases, not programs. Thus, raising the fiscal 1972 shortfall, as we see it in terms of program activities, to something like \$20.3 million. It is quite true that the President has provided an additional \$100 million for new special cancer initiative which brings the net change up to plus \$88 million or thereabouts. The fact remains that for the basic continuing programs of the NIH the President is requesting substantially less money for fiscal 1972 than the Congress made available for fiscal 1971. We believe, gentlemen, that fiscal year 1969 represents a reasonable base year against which to compare the level of research activity the President's 1972 budget will permit.

Funding levels in fiscal 1968 were a consequence of the normal course of the executive and legislative budget process in contrast to fiscal 1970 when the President's veto and subsequent across-the-board cuts confused the issue. Program levels in fiscal 1969 also were a consequence of considerable retrenchment and consolidation from the high point of research funding that had taken place in 1967, a few years earlier.

To maintain in fiscal 1972 the same level of research and research training activity that existed in fiscal 1969, allowing a minimum of 6 percent per year increase for inflation, will require a budget for research and research training that is \$152 million higher than the President's request provides.

Naturally, we urge that the subcommittee view this increase as the minimum level of additional funds required for these vital research programs in fiscal 1972. It should be pointed out that this increase does

not provide at all for the added cost of biomedical research due to increasing sophistication of equipment, technical services, and staff now required for further scientific advance.

The administration plans for fiscal 1972 hit hardest at what constituted the vital seed-crop programs of the NIH, and I would like to mention those. There are four of them, Mr. Chairman, but I shall go into no detail in the hope that we will have provided enough information for the subcommittee in the testimony for the record.

The first of the seed-crop programs is the fellowship and training grant programs for NIH, which we consider to be highly essential. These will be cut by a total of \$75 million below the appropriated level for these programs in fiscal 1971 and for the main reason that these programs provide the manpower to carry out expanded research programs, special initiative programs for which there is great demand, as well as the additional faculty we need to expand our output of physicians.

We urge that these vital programs, fellowship and training grant programs, not be cut.

The handling of the training programs of NIH is somewhat difficult for us to understand in the context of all these proposals for major expansion, particularly research, and turning out more physicians. There are other points I would like to mention. Seed projects, seed programs. General research support program of the NIH will be cut \$11.5 million below the level of funding established for this program in fiscal 1971. This is again a counterproductive step. These funds actually multiply the value of appropriations specifically directed to the program of research projects, to the support of research project. Phasing out this program which seems to us to be the administration's purpose will substantially impair the effectiveness of the entire medical research structure.

Then a third point, funds available for new and competing research grants will be cut almost \$10 million below the level set in fiscal year 1971.

As I have pointed out, that represented a considerable attrition not only because of budgetary actions but also because the effect of inflation. These new research programs are again essential to the country's program to conquer the health crisis.

No. 4, I am sure that the committee is weary of the constant emphasis upon and repetition of the axiom that only through the advance of basic knowledge can we hope to achieve eventual mastery of premature death and major diseases and causes of disability in man. It stands in some contract to this view of what is being proposed in terms of the budget for the National Institute of General Medical Sciences. We think it is inappropriate that this particular budget should be cut by something like nearly \$16 million below the amount that Congress appropriated in fiscal 1971.

We urge, sir, that the committee restore the funding levels of these vital programs at least to their 1971 level. We also urge that the committee accept as a principle the maintenance of the fiscal year 1968 level of research effort, as supported through research and research training grants, as the minimal base of scientific activity on which our national health effort vitally depends.

Now to maintain the 1969 level of research activity needed to provide for further program development in key areas will require a fiscal 1972 appropriation level for NIH Research Institutes and Divisions of \$1.5 billion, an increase of \$200 million over the President's request. Obviously, and in conclusion, Mr. Chairman, it is not reasonable to attack, simultaneously and with equal emphasis, all known ills to which the human flesh is heir.

It is our conviction that the American public is in agreement with us in regard to reconsidering our priorities and halting the decline in our biomedical research efforts. Further degradation in that effort, whether or not we rapidly succeed in effectively guaranteeing the right to health by reorganizing our system for delivery of health services, is simply not defensible on the basis of the established record. It will take relatively little further attrition to reduce the programs of the National Institutes of Health to a routine and uninspired state.

On the other hand, if this should happen it will take years and billions of dollars to rebuild it to the point where it can once again take the lead in strengthening and maintaining the fundamental foundation which is biomedical research on which the Nation's health inevitably rests.

We are grateful, sir, for the opportunity of making a statement. You have given us every consideration. We will be glad to answer any questions you may have in mind.

Senator MAGNUSON. Your figure of \$200 million would bring the total in biomedical research to \$1.149 billion?

Dr. COOPER. There is a table on the last page of the testimony, next to the last page.

Senator MAGNUSON. Last year there was \$1.166 billion for all the Institutes.

Dr. COOPER. The figure that we have is \$1.230 million.

Senator MAGNUSON. When we get up to \$1.291 billion we are including \$100 million for special cancer research?

Dr. COOPER. Yes, sir.

Senator MAGNUSON. That puts the figure from 1971 but when you take the \$100 million out it is not up very much. Then also when you speak of fiscal 1969, there have been—I will list them, some new programs that have been put in out there—that would be put in this amount so that actually with the new programs and taking out the \$100 million which is a special effort, we are pretty much below.

Dr. COOPER. Yes, sir.

Senator MAGNUSON. This is the information we like to get. We followed you people for 2 years and we got vetoed both times. The result was that the Senator from New Hampshire and I spent Christmas Eve on the floor of the Senate trying to get the money back. It took that long.

I do think there is a little more give to it down there now than we had then.

Another problem we have, and I am sure you know about it, is that we fund all these programs and then when you look at the yet unfunded amount you have another over \$150 million or more.

Now I am not critical of that in some cases because some of these things spill over and the applications have been granted or they are

not quite ready or things of that kind. But you think on analysis that to do what you are talking about in your very excellent statement the minimum should be \$200 million.

Dr. CHAPMAN. Yes, sir.

Senator MAGNUSON. Which will be spread according to the priorities of NIH itself.

Mr. MURTAUGH. We have them in the Institutes. These came to discussions with the people that related to the fields.

Senator MAGNUSON. They have a spread here which we can put in the record. We have Heart and Lung Institute—these are your figures, heart and lung, \$40 million. Cancer is not in here because that is a separate item. Dental research, \$5 million. Arthritis is \$25 million. Neurological diseases and stroke, \$35 million. Allergy and infectious diseases, \$15 million. General medical sciences, \$40 million. Child health and human development, \$30 million. The eye institute, the same. Then you don't recommend any more there. Then the others, the research resources, \$8 million.

So we will take a good look at those figures and see what we can adjust them to against our capabilities and the problems we have.

Have you appeared before the House?

Mr. MURTAUGH. Yes, sir.

Senator MAGNUSON. And the statement is substantially the same?

Mr. MURTAUGH. Yes, sir.

Senator MAGNUSON. The House bill won't be over here until July 21.

I have no further questions.

Off the record.

(Discussion off the record.)

Senator COTTON. I have only two quick points to mention for your comment.

You can forget Dartmouth because I am talking generally. For years in this committee, and I have been here about 12 years, for years every time the representatives of the medical professions came before us we would try suggesting to them that in the interest of delivery of medical services to people, getting more doctors, that some condensing of the time element in producing physicians seemed necessary. For years everyone who came before us was horrified at the very thought, they seemed to jump all over us and say under no circumstances would we ever lower the standard of training physicians, which of course is a sound position. Dr. Egeberg was the first, as I recall it, was the first representative of the profession who came before us who did not take that attitude. He felt that the length of years necessary to get a physician into practice could be condensed in some way without detracting unduly from the standards of the profession.

Now you can forget what you are doing, I am talking to all three of you. What is your comment today on that?

Mr. MURTAUGH. I think the position that almost all the medical schools are taking is that we must have flexibility in the length of the program. For some students 3 years may be even too much. Ten years ago I started a program in Northwestern, 6 years from high school to the M.D. degree. That can be shortened further. What you can do is tailor the program to the student's capabilities and scope. Three years is one length of time.

In the chairman's State the University of Washington has done the same kind of thing, making it very flexible—kinds of approaches that will reduce it to the minimum length compatible with the student's ability and his goals. That is what we are pushing for, flexibility, shortening where it is appropriate. But we have no objection at all to shortening it. At the University of Washington students have graduated in 30 months from entrance, which is less than 3 years.

Senator COTTON. You are now talking just the period in the medical school?

Mr. MURTAUGH. Yes, sir.

Senator COTTON. You are not commenting on whether you require the full 4 years of academic course prior to it or how many years will be required for internship and/or residences and so forth after it?

Mr. MURTAUGH. Yes, sir. You have hit the key. One has to look at the total length of the program from high school graduation to beginning of practice. That is being shortened at all segments.

Dr. CHAPMAN. Now the average time it takes a student from the time he enters college until the time he gets his M.D. is 6 years. Within a relatively few years, and this is my own view—it is not AAMC policy yet although I think it ought to be—in a relatively few years the average time required to obtain the M.D. ought to be 6 years from the time the student enters college to the time he gets his M.D. I believe this can be done without any decrease in quality education whatever. I also believe at the other end of the scale that we can shorten that too. The question of internship-residency years can be shortened again without any serious degradation in quality.

It ought to be possible in the relatively near future to have people out rendering service in 2, 3, and even 4 years less time than it takes now overall from the time of graduation from high school.

Senator COTTON. The other point I wanted you to comment on is a very practical one. It is somewhat political. What I say is critical of the executive branch despite the fact that it is of my own party affiliation. For the past couple of years the Bureau of the Budget representing the President and the administration has frowned upon grants for construction. The reasons were that they wanted to hold down the appropriations in general.

Now they frown upon it for quite a different reason. If you read the President's veto of the so-called Appalachian bill and the amount carried in it, it is rather revealing. The President says in his veto message it is not going to help the economy much if you put money into construction because it does not affect the economy soon enough. There is too much leadtime, which obviously means that they want to pep up the employment and the activity in the country and not do it through construction, because they want to get some effects from it before election time.

Now I am being very frank. We are going to run head-on into that situation, whatever this committee does. I am one who thinks we should do a good deal in appropriating for construction. Whatever we do there are going to be roadblocks downtown. You probably won't find it hard to agree with that statement.

Senator MAGNUSON. I agree.

Senator COTTON. I merely mention that to you. There must be some way that your organization can not just make your needs known to us, you must have some way to make them known downtown too.

Dr. CHAPMAN. We seek those ways, Senator Cotton; but it is not always easy.

Mr. MURTAUGH. I would like to express our gratitude for the very fine message you delivered last night on the bill. We hope you continue your invaluable efforts.

Senator MAGNUSON. Thank you.

Dr. CHAPMAN. Thank you, Mr. Chairman.

STATEMENT OF THE AMERICAN MEDICAL ASSOCIATION

Senator MAGNUSON. We will include in the record a statement submitted by the American Medical Association.

(The statement follows:)

The American Medical Association is pleased to present its views concerning certain health programs in the fiscal 1972 budget of the Department of Health, Education and Welfare.

One of our overriding concerns during the next fiscal year will be the implementation of adequate programs for the development of medical manpower. In appearances before this Committee during the past two Congresses, we have urged that full funding be provided for programs supporting medical education to meet a critical need at the heart of health care delivery.

We recognize that major legislation for the support of medical education and nursing education has expired and that new legislation to provide programs for the next few years is now being developed. We are hopeful that the results will provide programs which will assist in producing the necessary manpower. Adequate numbers of health personnel are essential. We are hopeful that we will have the opportunity to express our views when health manpower appropriations are considered, but we want to take this opportunity to express our concern for adequate funding to permit implementation of programs for increased support for medical education, including both institutional support and financial assistance for medical students. We cannot stress too strongly the urgent need of increased financial support for the continuation of existing medical schools and for the continued development of new schools. Also, new programs for support of nursing education should receive the full support of this Committee.

In addition, the programs enacted by the last Congress for the development of allied health personnel provide another opportunity for helping to meet the manpower needs and to extend the delivery of health care services to all Americans through the increased use of trained allied health personnel. We accordingly recommend that the programs providing financial support to augment the development of allied health personnel be funded completely in order to accomplish the legislative goals.

Maternal and Child Health Care

We want to turn now to the maternal and child health care programs under Title V of the Social Security Act. It is important that we put our emphasis on those activities which will provide the opportunity for every child to be born healthy, to grow up healthy, and to reach his or her full potential. The national goal must be directed towards a full cycle of a healthy baby, a healthy child, a healthy mother, and in turn a healthy baby, etc. It is within the early years of life that a child should develop the ability to meet the demands of our increasingly complex society. The ongoing vitality of the nation depends upon the success of this effort.

Currently there is much talk about ecology and about improving the external environment. This is good, but it is somewhat astounding that the internal, uterine environment receives so little serious attention. It must be remembered that the uterus is every man's first environment and for far too many it is indeed the most hazardous.

Babies in large numbers are still being born prematurely and immaturely. Many of these infants are born to mothers who have had little or no maternal care, including prenatal care, family planning and interconceptional care, many of whom are poorly nourished. Many of these mothers are adolescents who are at high risk obstetrically, socially and educationally. In this segment of the population mothers are plagued by needless complications accompanying pregnancy and delivery. As a consequence, infants sustain handicaps which limit their subsequent development. A considerable number of such infants are simply brought to a mere survival level. The annual loss of infant life is dwarfed by the wastage in human potential caused by varying degrees of physical and mental handicaps.

The annual production of thousands of damaged babies is strong evidence that life for many is compromised at its early beginning by circumstances surrounding pregnancy, labor, delivery, and early infancy. Aside from the human tragedy involved, in order to help those who survive make the most of what assets they have, many costly services are required. It costs at present about \$6 per day to keep these children in institutional care, and the life expectancy is about 60-70 years. Fifty years of institutional living for one individual would cost at least \$100,000.

The high cost of providing compensatory training, corrective health care, institutional care, special education and rehabilitation services has been growing at an alarming rate. Yet, in far too many instances, these programs have accomplished a very small fraction of what was expected. Without question such programs are necessary; however, they must be planned in a growth and developmental framework and must take into full account the physical and mental-emotional defects and biological damage which take place in the bodies of the children before birth and during the early years of life. Physicians find especially tragic those cases where special efforts might have averted the lifelong handicap.

The American Medical Association urges that this Committee provide full funding for the Maternal and Child Health Care programs under Title V. The formula and project grants should be supported in full. Formula grant programs are the major sources of care for mothers and children who do not have access to private care for preventive services and treatment of sickness. The maternal and infant care projects now in operation have substantially reduced infant mortality rates in areas where they have traditionally been highest by providing early and comprehensive medical care to high risk women and follow-up treatment for mothers and infants. More importantly, these projects, in reducing the number of neurologically damaged children, have improved the quality of life for many. In addition, the children and youth programs have provided preventive health services, diagnosis, treatment, and after-care, as well as early identification of defects which are correctible.

Notwithstanding the progress being made, the magnitude of the unmet health needs of infants, children and youth is staggering. Existing programs must be continued. Failure to do this would be a giant step backward. Many communities endeavoring to create new maternal and child health programs or to expand present services are unable to do so because sufficient funds are not available. The Title V legislation provides the means for financial assistance. The American Medical Association recommends strong support of the programs for maternal and child health and crippled children's services under Title V, including both formula and project grants, and recommends that full authorization of \$325 million be appropriated for fiscal 1972, instead of the projected \$235 million.

An additional, special hazard to child health should be mentioned. This concerns lead-poisoning--which can and does produce serious and tragic consequences for the individual and all of society. The Congress recognized this in its new legislation passed last year, the Lead-Based Paint Poisoning Prevention Act, P.L. 91-695. We urge that this Committee provide appropriations of \$20 million in implementation of programs under that law. We must dedicate ourselves to the early detection and treatment of this awful disease and to the eradication of conditions producing it.

In quick summary, we urge your strong support of the extension and expansion of the health programs under Title V, and the special programs aimed at alleviating lead poisoning. These programs will help to ensure an improved quality of life for all our children and youth and, in turn, for the nation at large.

Communicable Disease Control and Vaccination Assistance

The Communicable Disease Control Amendments of 1970, P.L. 91-464, provide programs of prevention and control against venereal disease, rubella, measles, Rh disease, poliomyelitis, diphtheria, tetanus and whooping cough. While this program has made substantial progress in the past in reducing the incidence of diseases covered by the former Vaccination Assistance Act, we are greatly concerned with reports which indicate declining levels of immunization protection against measles, poliomyelitis, and

diphtheria in the United States. The 1970 U.S. Immunization Survey showed a significantly lower immunity level in preschool children in poverty areas against polio, measles, and diphtheria-tetanus-pertussis.

Reports indicate threats of epidemic measles and polio, especially in central city poverty areas and some rural areas, unless vigorous vaccination efforts are undertaken. Only 41.1% of children in the 1-4 age group in poverty areas of central cities have received measles vaccine, down 5% from 1969. Only 50.9% had received polio vaccine (55.1% in 1969) and 55.8% had received DTP (65.1% in 1969).

We recognize that under the Partnership for Health Act funds may be provided through formula grants and project grants for application to these programs. As to venereal disease and tuberculosis, the Partnership for Health Act was probably intended to be the legislative format for such control programs. Nevertheless, we supported the enactment of the Communicable Disease Control Act so that the necessary vaccination programs would be continued.

The spread of infectious venereal disease has become alarmingly extensive. For the year ending June 30, 1970, infectious syphilis rates were eight percent higher nationally than a year earlier, with annual increases spread over 33 states and an estimated incidence between 70-80,000 reported cases; there are 250,000 cases of all forms of syphilis estimated to be diagnosed and treated each year. At the same time, gonorrhea morbidity exceeded 573,000 reported cases, Gonorrhea is pandemic in the United States, with an estimated two million cases. Efforts to control and eradicate venereal disease must be made a national program.

The Communicable Disease Control Act provides for the prevention and treatment of communicable diseases. Ninety million dollars are authorized for such programs. We recommend and urge that adequate funds be provided.

Alcoholism Prevention and Treatment

The \$100 million authorized by the Comprehensive Alcohol Abuse and Alcoholism Prevention, Treatment and Rehabilitation Act, P.L. 91-616, can provide a strong beginning for a concentrated attack on a serious public health problem. With an estimated 9 million alcoholics in this country, this would represent an expenditure of only \$11 per person directly involved, without counting the additional millions of individuals whose lives are affected adversely as they live, associate and come into contact with people who are dependent on alcohol.

To attempt to prevent and treat alcoholism, and to try to rehabilitate those who are dependent on alcohol, is to practice preventive medicine in the fullest sense of that term. The personal and social costs of alcoholism and excessive drinking have been calculated on numerous occasions in the past, and their considerable totals are undoubtedly already known to this Committee.

Let us simply remind you that alcohol is involved in more than one-half of all auto accident fatalities in this country, and that the drinking involved in these accidents is the excessive drinking we characterize as alcohol abuse; that the suicide rate for alcoholics is many times greater than that for the population as a whole, and that in urban areas most suicides are committed by persons suffering from either depression or alcoholism.

Further, the association of alcoholism with other illnesses is well documented. Such disorders include psychoses and other mental illnesses, neurological impairment, diseases of the liver and pancreas, gastro-intestinal disturbances, and cardiovascular problems.

In terms of economic loss, the unproductiveness of the alcoholic during his 30's, 40's and 50's is augmented by the several billions of dollars industry loses annually through absenteeism and on-the-job accidents related to alcoholism and alcohol abuse.

These are some of the consequences which can be alleviated by a concerted and coordinated national commitment to effective prevention, treatment and rehabilitation. These are some examples of the misery and waste which P.L. 91-616, properly implemented, can help to avert.

The passage of this legislation called for effective action. We urge you to appropriate the full amount authorized to carry out this national intent. To do less would stifle action, when the need is to move forward as soon and as rapidly as possible.

In addition, we call your attention to the proposed cut in NIMH support for psychiatric training. If we are to have effective programs to combat alcoholism, as well as drug abuse and also maintain other mental health programs, we must have adequate personnel. We also recommend the appropriation restore the \$6.7 million eliminated in the proposed budget for psychiatric training.

Regional Medical Programs

RMP is intended to provide programs aimed at bringing medical technology into the medical community to enhance the skill of providers of services at the local level and to bring the advances in medicine to the public more quickly. RMP has implemented a variety of programs, some 55 in number, which have sought the improvement of regional health resources and services. Heart disease, cancer, stroke, kidney disease, as well as related diseases, are the targets under these programs.

These beneficial programs deserve this Committee's support, not only for continuation, but also for expansion. Under the law as amended by the last Congress, the authorization for fiscal 1972 is \$150 million. We do not believe the \$52 million currently requested for support is sufficient to adequately meet the needs for continuation and expansion of appropriate programs under this legislation, even though some \$34 million may remain available from previous appropriations. We recommend that additional funds be appropriated.

In closing, we recognize the extreme difficulties which face this Committee in the allocation of funds to be spread over so many worthwhile programs in the health field. Many more than the above, such as programs for support of health facilities under the Hill-Burton program, increased support for the FDA, adequate funding for research within the NIH, together with training of personnel, adequate funding of programs for drug abuse control, to mention only a few, should be supported as fully and adequately as possible.

STATEMENT OF MARION MURPHY, R.N., PH. D., DEAN, SCHOOL OF
NURSING, UNIVERSITY OF MARYLAND, REPRESENTING THE
AMERICAN NURSES' ASSOCIATION

Senator MAGNUSON. Dr. Margaret Schaefer, Association of Deans of College and University Schools of Nursing; Dr. Marion Murphy and Bess Piggott, Tacoma, Wash., and Dr. Coles, dean of the school of nursing at Howard University.

Who is going to speak for the group?

NURSING NEEDS

Miss MURPHY. I can lead off, Mr. Chairman.

I am Marion Murphy, chairman of the American Nurses' Association Commission on Nursing, and dean, education, and dean of the School of Nursing.

Next to me is Mrs. Bess Piggott, director of the School of Nursing of the Tacoma General Hospital, and then Dean Margaret Schaefer. They will speak in turn after my brief statement. We will all try to be brief.

Senator MAGNUSON. Before you start, off the record.

(Discussion off the record.)

Senator MAGNUSON. We will be glad to hear from you.

Miss MURPHY. Thank you, Mr. Chairman.

My two nursing colleagues, representing two other nursing groups, National League for Nursing and Association of Deans, will be speaking briefly to some rather specific points dealing with nursing education. So, in my summary, I will only highlight some nursing needs and address myself mainly to other specific budgetary areas and then ask that my longer statement, which you now have, be submitted for the record.

Senator MAGNUSON. All right, we will put all these statements in the record in full.

Miss MURPHY. Within the health manpower field the situation of nursing is critical. It is critical because, wherever health services are provided, there will be a demand for nurses. It is estimated the needs are to be met even reasonably well by 1980 the number of registered nurses must be increased by 52 percent. This means there must be a major increase in enrollment and in graduation from nursing schools, and very soon. We submit that the critical shortage of nursing manpower will not be overcome without substantial increases in funding. We are hopeful that legislation passed in the House and in the Senate will greatly increase authorization. Both bills include capitation support to schools of nursing on the basis of enrollment as well as student loans, scholarships and traineeships, project grants, and construction grants. We assure you we need them all.

First, a word about traineeship. The major portion of these funds is used to support the graduate education of nurses to prepare them for teaching, for clinical specialists, and for supervisory positions. The small percentage of training funds is earmarked for short courses such as workshops to prepare nurses to meet changing needs. For instance, right now to help nurse administrators in hospitals and public health agencies understand and cope with the impact of new health care delivery systems.

Another example would be for curriculum planning for new types of programs, especially new community college nursing programs, and then using new technologies to improve our teaching of nursing.

I speak from experience in saying that such short courses have real potential for bringing about more rapidly the needed changes to improve health care. There is need for more money for this short-term traineeship program. We have never had enough money to do the things in the short-term program that we know we can do.

Long-term traineeships, as we call them, support the student through payment of tuition and fees, some stipend, but in no other way support the nursing school in terms of faculty salaries or other education costs.

That brings me to capitation support. There is a great variation in cost of nursing programs as some of them are in large public institutions and others are small programs in private universities and colleges. One school in the midwest, for instance, can document educational costs in excess of \$6,000 per year for its graduate program, although others will estimate from \$4,000 to \$5,000 per student per year to be the undergraduate program cost.

With the budgetary squeeze and freeze in hiring, the need for reasonable faculty salary increases and promotional, some outside financial assistance, is a must if additional faculty are to be hired and enrollments are to be increased.

Although authorized in 1968, basic support grants have never been appropriated for nursing schools and like medical and dental and other costly programs in the health field, costs you see are related to clinical resources and clinical faculty required, nursing schools are desperate for financial assistance.

My colleagues will speak further to that. Now I would like to make some general comments about total needs in the health field.

Senator MAGNUSON. Pardon me, but I have to leave. I will try to be back.

When you speak for the institutions and the amount of Federal participation, what matching is there from the institutions?

Miss MURPHY. You mean for construction grants?

Senator MAGNUSON. No, I mean for other grants, project grants, not construction.

Miss MURPHY. Well, project grants—

Senator MAGNUSON. Construction grants would come under, like medical schools, the same thing, the 50-50 that was testified to here.

Miss MURPHY. Yes. The project grants are not a matching mechanism but a school faculty must design a project, defend why it needs this to improve its teaching and submit its application to NIH.

Senator MAGNUSON. Is there any matching?

Miss MURPHY. Not as much, except that the school provides the facility—actual project funds only do a specific small program. For instance, a new kind of demonstration project.

Senator MAGNUSON. A specific project they want to get at.

Miss MURPHY. That is right. Which does improve nursing education but the home school has to support all the basic things, the office, the equipment, and so forth.

Senator MAGNUSON. What I am trying to find out is how big should be the Federal participation in this program? Are we going to come to a point finally where it will be all Federal or have some local? The

more local support you have the better chance we have to justify what we are doing.

Say we are going to raise it and do more for nursing and these things, we have to have the local participation. Some of the State schools are not doing very well.

Miss MURPHY. Others are doing very well, sir, in just that sense.

Senator MAGNUSON. In Tacoma, the general hospital, how is that financed?

Mrs. PIGGOTT. It comes from the patients that are admitted to the hospital.

Senator MAGNUSON. From what the hospital makes?

Mrs. PIGGOTT. That is right.

Senator MAGNUSON. What they can scrape up themselves?

Mrs. PIGGOTT. The tuition fees of the students do not cover it. So, the other is made up by patients.

Senator MAGNUSON. Plus if you can get Federal money?

Mrs. PIGGOTT. Right.

Senator MAGNUSON. Before I leave, if you will excuse me just a moment, Mrs. Piggott points out no matter how much we appropriate in this for student loans and scholarships or project grants, you run into, are they available? I surely agree with your statement that the policy of forcing everything down to the banks gets pretty inequitable in school cases and is discouraging.

I point out that sometimes it is tougher for a woman to get a loan than it is for a man, and tough on the banks and the minority groups. This is true. I found two or three banks in my own State that would not make a loan unless the parents had a deposit there. They would present them with a credit card of course. So then they would get deeper in debt right then. It is difficult for the banks. So we have to take a look at not only have we sufficient money for the guaranteed loans but see what the availability of loans are.

If you will excuse me for a minute or two I will be back as soon as I can.

Senator CORTON. Where were you in your statement?

Miss MURPHY. I was about to begin my general comments about budgetary needs, beginning with the National Institutes of Health. The National Institutes of Health have responsibility of research, for training of health manpower and dissemination of research findings. I would agree with Dr. Chapman's example, without adequately supported research, progress in conquering serious and disabling conditions that take heavy toll in this country will not be made. Neither will progress be made when funds for grants and fellowships are curtailed. This will cut back on the number of persons prepared and qualified for investigation.

In a similar way, adequate support for the National Library of Medicine could promote more rapid communication of health and scientific data to health personnel throughout this country and the world, so it could be shared in a more adequate way. Some of this has been fostered already through the MEDLARS System. For 25 years the National Institute of Mental Health has been engaged in research, in training manpower and in promoting services to foster mental health. These activities have resulted in a dramatic decrease in long-term hospitalization for mental illness and a shift to providing care in a variety of ways in the individual's home community.

Yet for fiscal 1972 the administration is not requesting any appropriation for construction of mental health centers although there is no evidence that mental illness is declining in our population or that additional centers will not be needed.

Many applications indeed are waiting for funds. If community resources are not available we may well see admissions to psychiatric hospitals increase to their former level. This would be a tragedy in this country at this time. A cut of several million dollars in psychiatric training funds is also proposed and this at a time when alcoholism and drug abuse and emotional behavior problems are a matter of grave concern.

Coping with these problems requires highly qualified, up-to-date professional personnel. We urge this subcommittee to adequately fund these mental health training programs. With the widespread criticism which the present health delivery system is receiving and to which Dr. Chapman referred, it is essential that sufficient support be given to the health services and development program which is charged with an investigating and proposing new ways for delivering health care so that it becomes more accessible to those who need it.

In nursing we are interested in continuing money for the training of nurse practitioners who can be of greater assistance in making health care accessible. The regional program was established to make available to patients the results of research and to bring the latest advances in the diagnoses and treatment of disease that were major causes of disability, namely, cancer, stroke and heart disease.

Although only about 4 years old, really, in a preschool period, the RMP's have demonstrated a capacity for stimulating cooperative effort that we have not really had before to provide high quality care through the education of practitioners.

Significantly, they have been instrumental in bringing together many of the members of health occupations, not just the professions but the whole health occupational field engaged in the delivery of health care. They have promoted and carried out activities for the updating of knowledge and continuing education of members of the disciplines involved. In spite of these contributions and the potential for greater success the administration requests for fiscal 1972 is more than 50 percent below that of fiscal 1971.

Millions of dollars appropriated for fiscal 1971 were never released. As a representative of a medical center where nursing and medicine have worked together to very successfully operate programs, short courses for nurses and for physicians in coronary treatment and in stroke prevention and treatment over the last 3 years, I wonder why.

Another serious situation is that of lead-based paint poisoning which has received some attention, but insufficient funding to effectively attack this problem through case finding and public education and treatment. Lead poisoning can result in kidney disease and mental retardation in children and especially poor children of preschool age living in the inner city in old and substandard housing. In all my nursing years before I became a dean I was a public health nurse and I know all about substandard housing in the country and they are not all in urban centers.

I have seen rat bites on children. I have seen paint flakes in babies' cribs. We didn't know 20 years ago as much about lead poisoning of

babies and little children as we know today, thanks to research. Nurses working in large city pediatric units are aware of the pain, suffering and long-term results of lead poisoning on many children. Early diagnosis and treatment are vital but of course prevention is more desirable. Many of the victims are not usually under regular health supervision.

We strongly urge \$20 million be appropriated for fiscal 1972 to carry out the intent of the Congress when it passed the Lead Based Paint Poisoning Prevention Act.

The American Nurses' Association has joined with other organizations in the coalition for health funding. The coalition has a major interest in advancing the health of this country. This cannot be done without a large investment of money at the Federal level. Therefore, we trust that this committee will concur and will be generous in its appropriations for health. We think that health and its related programs such as housing, nutrition, and the like must become our highest priorities.

I appreciate very much having this opportunity to speak to this subcommittee which I know is knowledgeable about health needs.

After my colleagues have spoken, we will be happy to answer any questions.

Senator CORTON. Thank you.

(The statement follows:)

Mr. Chairman, I am Marion Murphy, Chairman of the ANA Commission on Nursing Education and Dean of the School of Nursing, University of Maryland. I appear here today, representing the American Nurses' Association, the professional association of registered nurses in the United States to speak to appropriations for certain programs of the Department of Health, Education and Welfare.

There is continuing and increasing concern about the health delivery system in this country, the inaccessibility of many citizens to equal health services, the shortage and uneven distribution of health personnel.

It was anticipated that the Administration's health budget proposals would reflect this concern and that meeting health needs would have top priority. This, however, has not been the case. In many instances Fiscal 1972 requests are at the Fiscal 1971 level, only slightly above, or are cut back. If the Fiscal 1972 requests are approved by the Congress, research efforts and manpower training will be seriously retarded.

Within the National Institutes of Health rests the responsibility for support of medical research, for the training of health manpower and the dissemination of research findings.

Without adequately supported research progress in conquering the serious and disabling conditions that take a heavy toll in this country will not be made. Neither will progress be made when funds for grants and fellowships are curtailed. This will cut back on the number of persons prepared and qualified for investigation.

Nurses, because of their extensive and intensive patient contacts, are very aware of the ways in which recent breakthroughs in research have affected health care. One example is the effect of the polio vaccines on the demise of that not so long ago frightening, disabling and crippling disease that hit epidemic proportions in our cities on an almost annual basis. The health manpower hours and the facilities required in caring for those patients was costly, both emotionally and economically. The long-term cost savings, if such things can be estimated in that way, which resulted from the research dollars spent on polio vaccine is huge.

Similar things can be said about the measles vaccine, the findings in the field of genetics, coronary care, neurological research and so on. It is very short-sighted to cut back, or restrain progress in this area.

We agree, of course, that the benefits of such research findings must be made available more rapidly to the total population. The general population must be able to benefit from the research that is done. The quality of care available must be more equitable both on geographic and economic basis.

Adequate support for the National Library of Medicine could promote more rapid communication of health and scientific data to health personnel throughout this country and the world. Some of this has been fostered already through the MEDLARS system.

The health field as a whole has been identified as one with a significant shortage of qualified personnel. It is anticipated that demand for personnel will become more acute as health services are made more equitably available to the people of this country. Initiation of a national health insurance program of some type in the near future seems likely and will require advance planning and support for the additional

manpower that will be needed for the delivery of effective health services in institutions and in the community.

Health Manpower - Nursing

Within the health manpower field the situation of nursing is critical and it is critical because wherever health services are provided there will be a demand for nurses. It is estimated, if needs are to be met in 1980, that the number of registered nurses must be increased by fifty-two percent. This means there must be a major increase in enrollments and in graduations from nursing schools, and very soon.

Increasing enrollments requires a concomitant increase in the number of qualified teachers, more spaces in schools of nursing, loans and scholarships for students, project grants to improve nursing education, nursing practice, promote career mobility and institutional grants to help schools meet the high costs of this type of education. We want to attract into nursing and retain more members of minority and disadvantaged groups. Often some of these groups have educational deficiencies and additional funds are needed for schools to provide the additional educational assistance. In addition, students from low-income families need substantial financial aid to meet their tuition and living costs.

The Administration is proposing for Fiscal 1972, appropriations for nursing education totaling approximately \$68 million. The requests are, for the most part, at the same level as for Fiscal 1971. The student loan program is cut by \$6 million. Only eight million dollars is asked for construction of nursing schools although there is a backlog of \$27 million in approved but unfunded construction grants. The professional nurse traineeship program which aids nurses preparing for teaching, supervision, administration and specialty practice, would have appropriated for it only \$1 million over Fiscal 1971. No request is made for institutional grants.

Although institutional grants were authorized for schools of nursing in the Health Manpower Act of 1968, no monies were ever appropriated.

We submit that the critical shortage of nurse manpower will not be overcome without substantial increases in funding. We are hopeful that legislation passed in the House and still pending in the Senate will greatly increase funding. Both bills include capitation support to schools of nursing on the basis of enrollments, as well as loans, scholarships, traineeships, project grants and construction grants.

Traineeships

The major portion of these funds is used to support the graduate education of nurses to prepare them for teaching, clinical specialist and supervising positions. There is some funding of diploma and community college prepared nurses for the last year of a baccalaureate program. Such assistance helps those nurses interested in becoming teachers or nursing care supervisors to meet the entrance requirements of the graduate schools.

A small percentage of traineeship funds is earmarked for short courses such as workshops to prepare nurses for changing needs (such as for curriculum planning for new types of programs, especially for new community college nursing programs and using new technologies to improve teaching, etc.). Such courses have real potential for bringing about more rapidly the needed changes to improve health care. There is need for more money for this short-term traineeship program.

Traineeships support the student (payment of tuition and fees and some stipends) but in no other way support the nursing school in terms of faculty salaries or other education costs.

To date, the requests for long-term traineeship funds alone for the next school year (FY 1972) amounts to \$17 million as compared to last year's total amount requested for that program which was \$14 million!

In 1970, 73.8% of the traineeship funds requested were awarded (\$10.470 million appropriated) while in 1971 because there was no increase in the appropriation only 68.7% of the amount requested could be awarded. That meant that 1482 nurses that needed financial assistance for graduate education could not receive it. If the appropriation for traineeships for fiscal 1972 remains the same, only 60% of the nurses needing support will be able to receive it. 1700 nurses will not be supported. This is quite a drop at a time when the demand for nurse teachers is great! The same amount of money cannot go as far, because like everything else tuition costs are increasing.

The National League for Nursing did a nurse faculty census in 1970 that showed that there were 1244 budgeted faculty vacancies. In addition, the number of people teaching without the minimum educational qualification for higher education, a masters degree, was as follows:

Baccalaureate & higher degree programs	14.7%
Associate Degree programs	40.9%
Diploma (hospital schools)	81.9%
Practical nurse programs	93.5%

In addition to the already great demand for teachers, the start up grants for new schools and the project grant provisions (to prepare new types of nursing personnel such as midwives and pediatric nurse practitioners) as authorized in H.R. 8630, which has passed, and in S. 1747 will further increase the demand for well-qualified nursing faculty. If we are to close the gap in the nurse supply, this is one of our greatest needs.

Many schools have indicated that they can increase their graduate school enrollments if they have adequate institutional support to hire faculty and if student financial aid programs are markedly increased. Undergraduate nursing program enrollments are showing a steady rate of increase which we anticipate will continue, again if the appropriations match the authorizations in the pending Nurse Training Bills. The uncertainty caused by the lateness of the enactment of this new legislation and the anticipated delay in appropriations may result in decreased enrollments for the next year but hopefully that can be made up in the following year. The increasing amounts being requested for fiscal 1972, both for student loans and scholarships, reflect rapidly increasing tuition and living costs.

Institutional Costs

There is a great variation in costs of nursing programs as some are in large public institutions and others are small programs in private universities. One school in the midwest can document educational costs in excess of \$6,000 per student per year for its graduate program while others estimate \$4 - \$5,000 per student per year to be the undergraduate program cost. With the budgetary squeeze and freeze on hiring, salary increases and promotions in so many institutions of higher education, outside financial assistance is a must if additional faculty are to be hired and enrollments are to be increased. Although authorized in 1968, basic support grants have never been appropriated for nursing schools. Like medical, dental and other costly programs (those costs are related to clinical resources and clinical faculty required) nursing schools are d sperate for financial assistance.

As a result of talk about an oversupply of certain categories of workers, notably teachers and scientists, the potential for recruitment into nursing is greater than ever right now. It seems a shame after talking about it

for years not to be able to take advantage of this time when health care services are so in need of personnel.

If the supply of registered nurses is to match the demand, there are several things that are needed in addition to traineeship funds and institutional support.

Construction Grants

The construction of new schools of nursing has been brought almost to a standstill by the low-level of appropriations for that purpose in the past two years. As this committee is well aware, the amount appropriated, although well below the amounts authorized, have not been released. Of the 9.5 million dollars appropriated for this year, only eight million dollars was allocated. When the 1972 budget was released in January, the American Nurses' Association inquired about the request for construction grants which was for only 8 million dollars again. Less than the amount appropriated for the current year! We were told it was not in fact a cut back because the 1.5 million dollars that would not be released for this fiscal year (1971) would be carried over to the next year's budget, therefore, we would have 9.5 million dollars for construction of nursing education facilities in 1972 -- an increase of 1.5 million dollars over 1971.

Now all of this seems to me to be very questionable and is certainly not in the interest of increasing the supply of nurses at this critical time. What assurance do we have that the Administration will, in fact, release the 9.5 million dollars it has promised in 1972. Can this committee assure that the funds appropriated will be used as and for the purposes you appropriate it?

Student Aid

Student scholarships and loans are in great demand. This committee has been generous in this respect in the past and we hope that you continue to see how important these student support programs are. Nursing has always encouraged low-income students to enter its ranks. This year, because of the general downturn of the economy as a whole, families that had planned to finance their children's education are finding it much more difficult to do so. In addition, tuition and living costs have increased markedly. To maintain just the same number of students being assisted the appropriations must be increased and we need to increase the numbers not just maintain the status quo.

Project Grants

The Special Project Grants have had a significant impact on improving nursing education. They have made it possible for schools to better utilize faculty, teach more effectively, lower the attrition rate by providing tutorial programs, and individualized instructional systems.

Some projects have also made it possible for regional developments to be fostered, such as the establishment of a graduate program in the west shared by several schools in California and Nevada. This promotes much better use of physical facilities and of faculty members in such short supply.

Health Services and Mental Health Administration

For twenty-five years the National Institute of Mental Health has been engaged in research, in training manpower and in promoting services to foster mental health. These activities have resulted in a dramatic decrease in long-term hospitalization and a shift to providing care in a variety of ways in the individual's own community.

The Congress has enacted legislation authorizing funds for community mental health centers and for the staffing of those centers. For Fiscal 1972 the Administration is not requesting any appropriation for construction of centers, although there is no evidence that mental illness is declining in our population or that additional centers will not be needed. Many applications are awaiting funds. If community resources are not available, we may well see admissions to psychiatric hospitals increase to their former level. This would be a great mistake.

A cut of seven million dollars in psychiatric training funds is also proposed. And this at a time when alcoholism, drug abuse and emotional behavioral problems are a matter of grave concern. Coping with these problems requires highly-qualified, up-to-date professional personnel. We urge this committee to adequately fund these manpower training grants.

Given the widespread criticism of the health delivery system it is essential that sufficient support be given to the Health Services Research and Development program which is charged with investigating and proposing new ways of delivering health care, so that it becomes more accessible to those who need it.

During the 1960's, legislation to promote comprehensive health planning was enacted by the Congress. Its purpose was to promote a partnership between government and the private sector, consumers and providers to determine health care needs, ways to meet identified needs for services and health manpower and insure against needless duplication of services and facilities. Some impact has been made in achieving greater coordination of services, in improved planning among facilities and agencies providing services and among groups of health workers providing care. but those efforts must be continued and improved. The Comprehensive Health Planning program should have increased Federal funding so the momentum gained will not be lost.

The Regional Medical Program was established to make available to patients the latest advances in the diagnosis and treatment of diseases that were a major cause of disability and mortality in this country, namely cancer, stroke and heart diseases. Although only about four years old, RMP's have demonstrated a capacity for stimulating cooperative efforts to provide high quality care through education of practitioners and the care itself. Significantly, they have been instrumental in bringing together members of the many health occupations engaged in the delivery of health care. They have promoted and carried out activities for the updating of knowledge and the continuing education of members of the disciplines involved. In spite of these contributions and the potential for greater success, the Administration request for Fiscal 1972 is more than 50% below that of Fiscal 1971. Millions of dollars appropriated for Fiscal year 1971 were never released.

We recommend also that substantial funds be appropriated for maternal and child health services under Title V of the Social Security Act. The grants available under this Title have made it possible to bring many women, espe-

cially the poor, under care early in pregnancy and have provided the essential follow-up of mothers and infants. Early care will, of course, improve the health of mothers and their infants. Nurse midwives and pediatric nurse practitioners are assuming an increasingly important role in providing these services.

Another serious situation is that of lead-based paint poisoning which has received some attention but insufficient funding to effectively attack the problem through case-finding, public education and treatment. Lead poisoning can result in kidney disease and mental retardation and afflicts especially poor children of pre-school age in the inner city in old and substandard housing. Nurses working in large city pediatric units are well aware of the pain, suffering and long-term results of lead poisoning on many young children. Early diagnosis and treatment are vital. Of course, prevention is much more to be desired. Many of the potential victims are not under regular health supervision and are not usually seen in well-child clinics. In New York City which has a lead poisoning program under the Health Department, mobile clinics are now being used in the inner city for searching out and encouraging testing to determine the level of lead in the blood. These clinics are manned by nurses and volunteers assist in home visiting.

We strongly urge that \$20 million be appropriated for Fiscal 1972 to carry out the intent of the Congress when it passed the Lead-Based Paint Poisoning Prevention Act.

The American Nurses' Association has joined with other organizations in the Coalition for Health Funding. The Coalition has a major interest in advancing the health of this country. This cannot be done without a large investment of money at the Federal level. Therefore, we trust that this committee will concur and will be generous in its appropriations for health. We think that health and its related programs such as housing, nutrition and the like must become our highest priorities.

AMERICAN NURSES' ASSOCIATION

Statement on

Appropriations for the Department of Labor

The Bureau of Labor Statistics has conducted three national surveys of hospital conditions since 1963. The last such study was made in March 1969. These data have been of vital importance in the assessment of the economic status of the nearly 3 million workers in this industry. The data also provides essential background information for health planning and the monitoring of health care costs in the country. We have supported the previous endeavors of the Bureau of Labor Statistics in collecting these data and urge that appropriations for the Bureau take into account the need for funds for these studies to be conducted and maintained at frequent intervals. We would hope that broad national studies be conducted at least once every two years with annual spot checks of salaries in "bench mark" positions in selected major metropolitan areas.

We would also like to call the attention of this committee to the need for data on employment conditions in another important segment of the health care industry, nursing homes and other extended care facilities. BLS has made three surveys of employees earnings and other employment conditions in these institutions. The last data collected were for April 1968. The numbers and use of these institutions continue to grow, taking an ever increasing proportion of our health dollar and of our labor force. Therefore, we urge that surveys of employment conditions in nursing homes and extended care facilities also be conducted at frequent intervals.

HVC:as
7/1/71

STATEMENT OF BESS M. PIGGOTT, DIRECTOR, SCHOOL OF NURSING,
TACOMA GENERAL HOSPITAL, TACOMA, WASH.

NURSING EDUCATION

Mrs. PIGGOTT. I am Bess Piggott, director of the School of Nursing of the Tacoma General Hospital in Tacoma, Wash.

Since my testimony is going into the record, I will just highlight some of the points of it.

Of course the committee is very much aware that nursing is the largest health profession and also how widely our services are needed. It is more than likely, a fact I think, that this is going to increase, we are moving out into the community. The role of the nurse is expanding. We will be concentrating on outpatient as well as inpatient care. This will increase the need for more nursing personnel.

In improving the Nation's health it will intensify the pressure on nursing not only to prepare more personnel at all levels of practice but prepare them to do more and more complex things than they have done in the past or that they are doing at the present time.

The potential for expanding the numbers of nursing personnel is definitely there. The latest figures on admissions to schools of nursing show that there has been a sharp increase over the year before, attesting to the strong attraction that nursing holds for our young people today. This is also the prospect of improving the opportunity for those who are already in nursing to advance to a higher degree of skill and to increase their ability to continue to the health care of the country. Nurses respond in many ways to the need to improve practice, to prepare more practitioners and to offer wider opportunities for advancement on their own.

The schools of nursing are experimenting with new teaching methods that will extend the reach of nursing faculty. Most schools have adopted the open curriculum system of advancing credit to students with previous experience or education in nursing that will enable the student to move upward in education and skill. Especially we are looking to the licensed practical nurse and the military personnel who are coming back who have been medical corpsmen. But only the schools that can afford to stay open can carry out such efforts and the operation of a school of nursing is a very expensive one.

Nursing education in the past has been severely penalized by the lack of institutional and other support. In fiscal year 1971, though legislation authorized \$35 million in construction grants for nursing schools, only 9.5 was actually granted and no grants at all were made from the authorized \$25 million for institutional support.

If this trend is not reversed, many schools of nursing will have to close and new schools will not open and enrollments in existing programs just can't be expanded.

In the face of such a situation, it is distressing to find that the level of aid proposed by the administration for nursing schools and students of nursing in 1972 is below that of 1971.

To meet the inevitable demands for more nursing personnel that enlarged health programs are going to bring, nursing schools must have funds for:

a. Construction, either to build new facilities or remodel and improve existing ones so that they can expand their enrollments.

b. Faculty recruitment and retention to provide education for their larger student bodies.

c. Programs that will improve the performance of their faculties and strengthen their curriculum.

d. Preparing more nurse teachers and more nurses with the high degree of clinical skill they need to improve the care they give to patients.

e. Programs of enrichment and specialized aid for students from disadvantaged backgrounds who need special assistance to succeed in nursing.

There is need also for financial assistance for students who wish to enter nursing. Many families are finding it hard today to provide the education for their children that they would like to give. Moreover, tuition and fees for all types of nursing programs are rising, until the cost to the student of a nursing education, once relatively low, is now higher than that of most other programs.

This increased cost is a matter of particular concern because of the appeal nursing has for young people from backgrounds that rank low on the economic scale. Not only do these young people want to enter nursing, but nursing schools want to enroll them because they are needed in nursing. As the scope of health care reaches out into the community, it is important that we recruit providers of nursing care from the community. Nurses drawn from the so-called multicultural groups have a special advantage because of their ability to relate to their own people. Many such young people are eager to prepare for the responsibilities of nursing, and they serve well once they complete their training, but their need for financial aid is greater than that of most other students. Educating them increases costs to the school, too, because these students frequently need individualized instruction and concentrated counseling throughout their program.

As Senator Magnuson said a moment ago, we in nursing fear that a change from direct student loans to guaranteed loan as proposed by the administration will cause an additional hardship for these students. Private banks are not eager to make loans to blacks, Puerto Ricans, and other individuals from families with low incomes. As a matter of fact, they are not especially quick to grant loans to women, and the guaranteed loan program may well work to the disadvantage of the majority of nursing students. When to this is added the fact that the administration's budget request for student loans for fiscal year 1972 is cut from that for fiscal year 1971 by almost half, the prospect that many potential students will be denied the opportunity to adopt nursing as a career is inescapable.

In short, we believe that the role of nursing in providing health care to the Nation is expanding. The support for nursing from governmental sources seems to be shrinking. If this threatened squeeze is allowed to become fact, it may be more than nursing that suffers.

I thank you, Mr. Chairman, and members of the subcommittee, for this opportunity to appear before you. If I can answer any questions or supply additional information, I shall be happy to do so.

Senator Corroon. Thank you for an excellent statement.

We had better hear all the statements before we start questions.
(The statement follows:)

Mr. Chairman, I am Mrs. Bess M. Piggott, director of the School of Nursing of the Tacoma General Hospital in Tacoma, Washington. I am here to speak for the National League for Nursing, a membership organization of some 17,000 individual members and 1,800 agency members who are concerned that nursing care should be available where and when it is needed and that it should be of the best possible quality. Our individual members are nurses, physicians, allied health professionals, educators, and interested citizens. Our agency members are schools of professional and practical nursing, hospital nursing services and public health nursing agencies. We also have an assembly of 1,300 home health agencies certified under Medicare-Medicaid.

As members of this committee know, nursing is the largest of the health professions, and the services provided by nurses are widely needed. It seems likely that the already high demand for nursing services will go even higher, as health care takes on greater importance in this country. Stress on preventing illness and on providing comprehensive care to the out-patient as well as the in-patient will increase the need for nursing personnel. National health insurance that extends health benefits to more people will have a similar result.

Improving our nation's health care will intensify the pressure on nursing, not only to prepare more personnel at all levels of practice, but prepare them to do more -- and more complex -- things than they have done in the past or are doing now.

The potential for expanding the numbers of nursing personnel definitely exists. The latest figures on admissions to schools of nursing showed a sharp increase over the year before, attesting to the strong attraction that nursing holds for today's young people who are so marked by their eagerness to serve.

There is also the prospect of improving the opportunities for those in nursing to advance to higher levels of skill and so increase their ability to contribute to the health of the country. Nursing is responding in many ways to the need to improve practice, to prepare more practitioners, and to offer nursing personnel wider opportunities for advancement in their profession. Schools of nursing are experimenting with new teaching methods that will extend the reach of existing nursing faculty. Most schools have adopted the open curriculum, a system of granting credit or advanced standing to students with previous experience or education in nursing that enables the individual to move upward on the scale of education and skill and prepares him to give greater service. In fact, in the use of credit by examination to facilitate upward mobility, nursing schools are in the vanguard among educational programs.

But only schools that can afford to stay open can carry out such efforts, and the operation of a school of nursing is an expensive undertaking. Nursing education has in the past been severely penalized by the lack of institutional and other support.

In Fiscal Year 1971, for example, though legislation authorized \$35 million in construction grants for nursing schools, only \$9.5 million was actually granted, and no grants at all were made from the authorized \$25 million for institutional support. If this trend is not reversed, many schools of nursing will have to close, new schools will not open, and enrollments in existing programs will not be expanded.

In the face of such a situation it is distressing to find that the level of aid proposed by the Administration for nursing schools and students of nursing in 1972 is below that of 1971.

To meet the inevitable demands for more nursing personnel that enlarged health programs are going to bring, nursing schools must have funds for

- a) construction, either to build new facilities or remodel and improve existing ones so that they can expand their enrollments
- b) faculty recruitment and retention to provide education for their larger student bodies
- c) programs that will improve the performance of their faculties and strengthen their curriculums
- d) preparing more nurse teachers and more nurses with the high degree of clinical skill they need to improve the care they give to patients
- e) programs of enrichment and specialized aid for students from disadvantaged backgrounds who need special assistance to succeed in nursing

There is need also for financial assistance for students who wish to enter nursing. Many families are finding it hard today to provide the education for their children that they would like to give. Moreover, tuition and fees for all types of nursing programs are rising, until the cost to the student of a nursing education, once relatively low, is now higher than that of most other programs.

This increased cost is a matter of particular concern because of the appeal nursing has for young people from backgrounds that rank low on the economic scale. Not only do these young people want to enter nursing, but nursing schools want to enroll them because they are needed in nursing. As the scope of health care reaches out into the community, it is important that we recruit providers of nursing care from the community. Nurses drawn from the so-called multi-cultural groups have a special advantage because of their ability to relate to their own people. Many such young people are eager to prepare for the responsibilities of nursing, and they serve well once they complete their training, but their need for financial aid is greater than that of most other students. (Educating them increases costs to the school too because these students frequently need individualized instruction and concentrated counseling throughout their program.)

As Sen. Magnuson said a moment ago,
 1 We in nursing fear that a change from direct student loans to guaranteed loan as proposed by the Administration will cause an additional hardship for these students. Private banks are not eager to make loans to blacks, Puerto Ricans, and other individuals from families with low incomes. As a matter of fact, they are not especially quick to grant loans to women, and as long as nursing continues to be a profession primarily of women, the guaranteed loan program may well work to the disadvantage of the majority of nursing students. When to this is added the fact that the Administration's budget request for student loans for Fiscal Year 1972 is cut from that for Fiscal Year 1971 by almost half, the prospect that many potential students will be denied the opportunity to adopt nursing as a career is inescapable.

In short, we believe that the role of nursing in providing health care to the nation is expanding. The support for nursing from governmental sources seems to be shrinking. If this threatened squeeze is allowed to become fact, it may be more than nursing that suffers.

I thank you, Mr. Chairman and members of the subcommittee, for this opportunity to appear before you. If I can answer any questions or supply additional information, I shall be happy to do so.

STATEMENT OF MARGUERITE J. SCHAEFER, VICE PRESIDENT,
ASSOCIATION OF DEANS OF COLLEGE & UNIVERSITY SCHOOLS
OF NURSING, AND DEAN OF THE UNIVERSITY OF PITTS-
BURGH SCHOOL OF NURSING

ACCOMPANIED BY DR. ANNA COLES, DEAN, SCHOOL OF NURSING,
HOWARD UNIVERSITY

COLLEGE AND UNIVERSITY NURSING PROGRAMS

Mrs. SCHAEFER. I am Marquerite J. Schaefer, vice president of the Association of Deans of College & University Schools of Nursing. I am dean of the School of Nursing of the University of Pittsburgh.

I want to point out to you that although I come from Pennsylvania, I was born and raised in New Hampshire. I went to the University of New Hampshire, so you do have another New Hampshirite here.

Senator COTTON. Where were you born?

Mrs. SCHAEFER. In Ashland, and I lived in Center Sandwich.

Senator COTTON. I was born and raised in Warren. You know where that is?

Mrs. SCHAEFER. I certainly do. Today is your day.

Senator COTTON. I am glad to know that.

Incidentally, I think that once in awhile the chairman does this, but I think the people in the room here ought to know why they are testifying to two Senators, or sometimes, when it is necessary, to one. Every member of the Appropriations Committee is on five or more subcommittees. Obviously, they can't be in five or more places at once. Every majority member of the committee is a chairman of a subcommittee as Senator Magnuson is chairman of this committee. Every Republican member is a ranking minority member on one. So we are expected to devote most of our time to the committee on which we serve as chairman and ranking member.

The result is that our other members are here occasionally. Senator Magnuson and I really sit through these hearings, the major portions of them, and occasionally he is called away as he has to be, and I have to take over. When we mark up the bill, the members are here and they have their pet projects, but usually they accept, in the main, the recommendations of the men who have listened to all of the evidence.

I just mention that so that you won't feel that you are wasting your time because you don't have a row of Senators sitting here.

Go ahead.

Mrs. SCHAEFER. Thank you. We don't feel we are wasting our time at all, Senator Cotton. Thank you very much for the explanation.

Although the Association of Deans which I am speaking for today has worked very hard and supported in every single way the financial support for other programs preparing nurses for practice, my particular mission today is to speak to the problems of those nursing programs based in the colleges and universities in this country.

I can cut a good bit of what I could say short because our situation parallels very, very much the situation in the medical schools, and Dr. Chapman has spoken to considerable length on these points.

There are several very necessary points for me to make here today and that is that our situation in the colleges and in the universities

in this country is too critical that there is one very clear priority which I would like to outline to this committee, and that is the priority for basic support to our schools in the form of capitation.

Why do I say that this is an outstanding priority?

I say this purely and simply because although special grant moneys, moneys to support construction, moneys to support students, is terribly and vitally urgent for us to have, if we don't have those schools, construction moneys and grants of other kinds of Federal aid are of no avail. That is how critical the situation has become.

Let me talk a little bit about this. Senator Magnuson asked what kind of matching moneys, what has been the local support for nursing and are we in danger of the Federal Government having to take over and provide a good deal more money in nursing.

My answer to this question would be that up to this point our schools of nursing have been badly supported by local moneys because we have never had any basic support moneys in our schools, ever.

However, as you well know, our universities and most especially our private universities and colleges are indeed in financial trouble. So at that point in time when the dollar gap between what the students bring in in terms of tuition and the cost per student of their education is widening the universities, and the colleges have less and less capacity to hit and fill in this dollar gap between the tuition being generated and the cost per student of their education.

I have evidence, as vice president of our association, and certain pieces are in the statement being put into the record, to show that we have very serious dollar deficiencies in every single one of our universities.

Furthermore, the universities are unable to make up this gap. The result this year is purely and simply this, that schools of nursing have had their budgets cut or have them frozen at their present rate, which means that faculties have no increases in salaries, that we can have no new faculty positions, and I do think that this year we probably, even if we were to have no Federal support, can survive at a fair maintenance level. But next year, gentlemen, it is not going to be a question of maintenance, it is going to be a question of survival because faculties do not need to stay, and they don't when you have no money to give them. We must have this basic support in order to maintain ourselves. We are not talking about any new programs or about any kind of new and innovative things we must and ought to be doing; we are talking about basic survival.

It is absolutely essential that this time around the Federal Government step in and help to fill that dollar gap that will maintain our operations.

The second point that I would like to make has to do with the special project funds. The cruciality of these funds for us and the universities and colleges is that these are the moneys that will provide us the financial wherewithal to change our programs, to alter our education so that we can prepare nurses to pick up and do much more than they have been able to do in the past. Our very best example of achievement in this area is in the area of our pediatric nurse practitioner whom I am sure you know we have turned out in enough numbers and tested in enough cases to guarantee to you that these fine nurses can pick up and do all of well baby care in this country and a great deal of care of children who have minor illnesses as well.

What we are trying to say is that if we can get the Federal support we need we can alter our educational programs, turning out nurses for the future to carry out our responsibility as well as to conduct those special programs which will bring presently practicing nurses back into our schools for postbaccalaureate or postprogram training to get those extra skills and knowledge they have to have.

So that the special grant money is extremely essential if we are going to build on our present base.

The third point I want to speak to is construction. We have the same story to tell as Dr. Chapman. We have matching moneys, for example, in my school. Those matching moneys are available this year, right this year. I have a pitiful tale to tell you that the architects are now planning to cut three, four, or five stories out of the building that was projected for nursing, to be built on the basis of State funds alone. Once that decision is made to cut the size of the school of nursing building back to just the matching moneys that the State will provide, we are locked into a school that cannot expand.

I mention my own school only because it is quite typical of what is happening across the country and rather than forfeit the matching moneys when they do become available we are being forced into construction of buildings which doesn't really meet our needs of the present, to say nothing of the needs of the future, if we are going to turn out more nurses to help deliver health care in this country.

Senator COTTON. May I interrupt you on that point? I know that you know this, but to me it is rather appalling. In fiscal year 1971, for construction of nursing schools, we appropriated \$8 million for the whole United States. This year the budget recommends not one cent.

Mrs. SCHAEFER. I know, Senator Cotton. When I tell you that the approved Federal appropriation for my school alone, approved but unfunded, is \$4.2 million, then you can imagine what is happening to us out in every State in the country.

Senator COTTON. Incidentally, what is the number you graduate from your school each year?

Mrs. SCHAEFER. From my particular school?

Senator COTTON. Yes.

Mrs. SCHAEFER. We are graduating, starting this next year, 150 students per year. We would hope to go up from there. The chances are very good that we are going to have to decrease our enrollment.

Senator COTTON. Would you two ladies, at this point, give me the number in your institution that you average?

Miss MURPHY. We graduate in the neighborhood of 200 nurses with a baccalaureate degree. Some of these, about 40 to 50 of them, are registered nurses who have already graduated from a hospital school or 2-year program and then come into our program.

In addition, we have another part of our program through an Army contract that this year graduated 100 additional nurses for the Army Nurse Corps. Then we graduate nearly 100 nurses with a master's degree at the University of Maryland.

Mrs. SCHAEFER. We graduate roughly 50 of the postgraduate people.

Mrs. PIGGOTT. We graduate between 45 and 50 because we don't have the clinical facilities. We could expand enrollment but we are locked in, again because of the lack of funds.

Senator COTTON. At this point, so that we will be all together, do these two ladies have statements they wish to make?

Dr. COLES. We will graduate our first student in 1973; 50 in the first class.

Mrs. SCHAEFER. I was finished. I just want to put a plea in for students that reemphasizes what has been said by Dr. Chapman. What has been said about the matter by my two colleagues. It is our deep concern that we do get the disadvantaged students some tuition. They are needed by the communities. Their problems are always the same. One, they cannot go to school without financial aid; two, we cannot afford to have them in our schools if we don't have some money to help them once they get in there. They are expensive students to educate. They need special tutoring. They need all kinds of special help. When we are very much pinched for money this kind of special tutorial aid is simply out of the question. So the basic support moneys, the special project moneys, would help it to educate more of these students.

The scholarship loans and Federal traineeships will help the student to stay in school. It is a two-way street and both sides of this street are equally important.

I thank you very much for the opportunity to be here.

(The statement follows:)

Mr. Chairman, I am Marguerite J. Schaefer, Vice President of the Association of Deans of College and University Schools of Nursing and Dean of the University of Pittsburgh School of Nursing. I am here today to speak for the Association of Deans, a relatively new organization of administrative heads of Accredited Schools of Nursing located in the colleges and universities across the country, founded two years ago. Our organization exists because it was felt that collective action would enable the university based nursing programs to better meet their responsibilities to our several publics.

One of these responsibilities is to work for the improvement of the delivery of health care services. In a statement issued during our last meeting held here in Washington last February, the Deans gave top priority to health services directed toward helping people attain, maintain or regain optimum health. They committed themselves to intensive efforts to find and test means by which nurses, working with other health professionals, can make quality health care accessible to the public at a reasonable cost. The Deans agreed to critically examine their programs in nursing education to insure that graduates are prepared to make a maximum contribution to an improved health care delivery system.

Given our stated concerns for health care and our commitment to increasing nursing's contribution to health care services it behooved us to examine what was

required in the achievement of our stated aims and to identify the barriers to their realization. Among the requirements we have identified are: (1) the need for many more nurses prepared as professional nurses with baccalaureate, masters and doctoral degrees, (2) the need to alter our educational programs to the end that nurses can assume greater responsibility in the delivery of that scant commodity, primary health care, (3) the need to provide additional skills and knowledge to practicing nurses so that they have the expertise needed to work as Pediatric Nurse Practitioners and in other expanded nurse roles and (4) the need to carefully evaluate the contribution that nurses can make to improving the delivery of health care in terms of both quality and cost.

It has been abundantly clear for many years that one of the barriers facing nursing educators in general and those of us in the universities and colleges in particular has been lack of necessary financial support. The problems in the past have been severe but the present financial plight in which our colleges and universities find themselves has brought any movement toward expanding faculties, increasing student enrollments, construction of educational facilities and improvement and alteration in educational programs to a screeching halt. Indeed, many of the schools headed by Deans in our Association are fighting for survival.

As members of the Senate Appropriations Committee, I am sure that you are aware of the new Bills to continue federal support for nursing education which are currently under consideration in the Congress. We are gratified, thus far, by the indications given us by the members of the House and the Senate of their understanding of nursing's needs and their willingness to help us get on with our job. However, this understanding and willingness to help unless translated into dollar support in the form of appropriations of the order needed will result in a diminution of nursing's ability to contribute to solutions of the nation's

health care problems. As nurses constitute the largest group of health care workers in our nation it is obvious that the failure of nursing to educate more nurses and to prepare nurses to provide a higher level of care leads to further erosion of an already faltering health care system.

My mission today then, is to speak to the needs of our schools for appropriations at the levels which will be provided in new legislation and why federal monies are so crucial to us and to the people of our country who are unhappy with the health care currently available to them.

One of the most urgent needs of our schools is for basic support monies such as will be hopefully provided by capitation in new legislation. Members of the Association of Deans have provided me in the past few months with the facts of their existence. These facts show conclusively that the gap between tuition income and the cost of conducting nursing programs has increased enormously. In some cases the college or university can contribute some money in support of programs but many university administrators simply do not have the resources to do so.

How wide is the gap? In three institutions in the Northeast, the difference between tuition income and per student cost is \$1,434, \$2,250 and \$2,006 dollars respectively. A private institution in the Midwest reports a deficit of \$2,400 dollars per student. The figure of \$3,411 dollars obtained from a study of 20 baccalaureate programs in New York and 4 in Tennessee as reported by the National Commission For The Study of Nursing and Nursing Education which many of us consider to be on the low side when contrasted to tuition income (which varies among our schools) results in a range of deficits of the same magnitude as indicated for the four schools cited. In my own school the dollar gap is \$2,250.

The inability of our schools to obtain monies to close the dollar gap between income and per student cost means not only that we cannot expand student enrollments and make needed changes in programs but that we are unable to even maintain the status quo. Budgets in most of the university schools of nursing have either been cut or have not been increased. Some specific results of this situation are: (1) no increase in numbers of faculty positions and in many schools a decrease in faculty positions which leads to no expansion of enrollments or to a cut back in numbers of students and (2) an inadequate salary increase or no increase at all for faculty and staff. Many Deans are fearful that by this time next year many faculty members will leave the teaching field to take more attractive offers in hospitals and other health agencies. Reports from schools across the country tell the same dreary story. For most all of us, basic support monies in the form of capitation will make the difference between maintaining the status quo and major cut backs in our operations. It is important to note that schools of nursing unlike schools of medicine, dentistry and other schools of the health professions have never received a penny of institutional support. The 11.5 million dollars referred to in the DHEW budget for fiscal 1972 is only for the Special Project Grant Programs.

The Special Project Grant Programs have been of great importance to us and will continue to be the avenue by which we can obtain monies for special programs such as post-graduate programs to prepare Pediatric Nurse Practitioners and for altering our teaching programs to meet today's needs. The sum of 11.5 million requested for fiscal 1972 is, however, the same amount as was budgeted this past year. No allowance has been made for growth or inflation, to say nothing of monies needed to help us meet the new demands placed upon us. The failure of the Federal government to appropriate any of the \$25 million authorized for institutional and improvement grants last year was a major disappointment and caused us

many headaches but continued failure to appropriate monies for basic support and for program support will simply mean that current health manpower deficits will increase at a time when the public is demanding more health care services.

It is the firm belief of the many physicians and nurses who have considered the ways and means by which we can increase the numbers of personnel capable of delivering primary health that the job can be accomplished by shifting some of the traditional practice of medicine over to nursing. There is ample evidence to prove that nurses with additional training in the skills of physical examination and history taking, for example, can save a large amount of physician time. Nurses who have had additional preparation have demonstrated beyond any shadow of a doubt that they can provide a high level of health care to children, to persons with chronic diseases and to the aged. Therefore, I am speaking to the need for the level of financial aid which will permit us to enroll more students and alter our educational programs in line with new thinking.

Another urgent need is for the construction of nursing facilities. Inadequate appropriations for nursing construction have thus far resulted in the accumulation of \$27 million dollars of approved but unfunded construction grants. To make clear what is happening as a result of this situation I will testify to the problems in my own school for there is \$4 million dollars in the accumulated \$27 million which has been approved for construction of a building for the University of Pittsburgh School of Nursing. The matching monies from the Commonwealth of Pennsylvania are to become available in this fiscal year. Since the previous history of appropriations give us little hope for obtaining the \$4 million of federal monies and the state matching monies must be used when they become available, the architects have now started to redesign our building. In two to three weeks I will learn what size and type of building can be constructed and

since it must necessarily be a smaller building we face the unhappy decision to limit the size of our school to its present size. The new facility cannot possibly be designed with such a reduction in funding to accomodate an expanded school of nursing. Meanwhile, the faculty is housed in seven different buildings and we suffer program limitations for lack of classroom space. Our case is typical of the problems faced by many other schools. Again, instead of building for the future we are building for the past. This is clearly no way in which to cope with our health manpower problems.

The last need to which I should like to speak relates to our students. Loans, scholarships and traineeships have made it possible for many more nurses to be educated and to be added to the national pool of teachers, administrators and clinical nurses. Increased appropriations to aid students becomes essential at this time for several reasons. First, most colleges and universities have increased their tuition charges. Not only are students and parents hit hard by these increases but it also means that our limited student aid monies have to be stretched further providing less aid to individual students or helping fewer students. From Adelphi University School of Nursing I have the information that they have a cut of \$34,000 dollars in traineeships for next year. At the University of Pittsburgh we are short by an amount of \$50,000. These shortages mean for most of us that some students will not be in school this fall because they cannot afford it and because we cannot help them.

Of particular concern to us is our problem of recruiting black students who consistently need financial aid. There is no sense in working hard to motivate and help young black women and men to enter schools of nursing if they can't be given financial aid. Neither are we able to operate new training programs without student support. At the University of Pittsburgh we shall have only seven instead

of 15 Pediatric Nurse Practitioners in training this fall if stipends are not available. Nurses coming back for additional training must give up their jobs to do so. They need help with basic living costs while they are out of work and back in school. Without some kind of support money these students will not return to school to learn the new skills and knowledge they need.

Although I am presenting the case for increased federal appropriations from the standpoint of college and university schools of nursing, our Association is also concerned that schools of nursing in hospitals and in community colleges continue to prepare nurses. We need nurses prepared at all levels if there is any hope for meeting nursing manpower needs. I am making a special plea for university programs since it is in these schools that the education of teachers, administrators and highly skilled clinical specialists occurs. Our graduate programs continue to turn out inadequate numbers of nurses to take leadership positions in our educational institutions and in our health agencies. This shortage of well prepared professional nurses has been a handicap to the health field for many years. With new demands for health care we must, nationally, be in a position to meet these needs. There is precious little lead time now. Any delay in providing financial aid to our schools making it possible for us to accept the responsibility we are able and committed to carrying bodes ill for the future in terms of delivering more care to more people. Nurses are asking for your support to do what is clearly necessary in the interests of the health of our people.

All of the members of the Association of Deans thank you for the opportunity to present our views to this committee.

7/15/71

SHORTAGE OF NURSES

Senator COTTON. Mrs. Coles?

Mrs. COLES. I am just here in support of my colleagues. I have no prepared testimony. I am free to answer any questions.

Senator COTTON. Now, we could go over step by step the budget here, but I don't think that that is necessary.

First, as far as our subcommittee is concerned, and I know I am speaking for the chairman, I can assure you that we are thoroughly aware and thoroughly alert to the desperate situation in the matter of nurses in the country. The bill we passed on the floor last night we hope will go through conference with the House and be signed by the President in time so that the committee will be able to act on those authorizations.

Technically, even then, the budget is supposed to send up a request. But once you have an authorization, sometimes the Appropriations Committee can act on it whether the budget has asked for anything or not. We have at least that freedom but we are bound to the authorizations.

We are also aware that the scarcity of nurses handicaps all of the delivery of our public health services. In New England I know of convalescent and nursing homes that simply are unable to function because they can't comply with the State law with the requisite number of registered nurses. You just can't get them. So that you have those doors closed to the old people.

We know of the scarcity in the hospitals. Many people leave the nursing profession for various reasons. One, I am sure is they marry and have children. In later years many of those people, it has been my observation, become available again. Either they are widowed, or their children have grown up, or the marriage was unfortunate. Whatever the reason they become available again. They have been out for a period of time.

Is there any organized program of attracting back into the profession those who have left it and refresher courses to bring them up to date?

Miss MURPHY. I would comment a little on that. Both of our national nursing organizations, American Nursing Association and American League for Nursing, have devoted a great deal of effort to stimulate both on a State level and then through stimulation on a national level, too, refresher course, various kinds of continuing education which will encourage the inactive nurse, the one who has been out of nursing for a few years—things change very rapidly—to come back. The success of this, I think, depends a lot on how it is done in the different States, how it is promoted. I would point out that some of the project grant money that we were talking about has been used for various kinds of demonstrations and pilot work to help a State set up or help a hospital or help an agency know how to recruit because this is a more complex problem than it seems on the surface.

Mrs. SCHAEFER. Might I answer that? Your point is a very good one, Senator Cotton.

I believe that the last national statistics indicate that 61 percent of the practicing nurses in this country at the present time are married women, a very, very large percentage. I might also say that the majority

of hospitals in this country have very active inservice programs to bring these women back in and upgrade them, get their skills up to date and put them back to work.

Yes, I think we are highly organized to do just this. In fact, we have so many of them at work I think bears testimony to our success.

Mrs. PIGGOTT. I think, also, Senator, we could do more, and here again it comes down to finances, if we could take this out in the rural communities where you have small community hospitals. Because they are married women and have families they can't come to Seattle or eastern Washington or Idaho into the larger cities. Again, it is a matter of money to take it to the area where it is needed.

Senator COTTON. I note the chairman has a question here which I have already anticipated somewhat in referring to nursing homes. He says these days we hear much about the minimum quality of care being received by our elderly population in nursing homes. In your opinion can nurses improve that situation? If so, could more people be cared for at home by visiting nurses?

Miss MURPHY. Yes, Senator; I would like to tackle that. Both from the home care angle and the nursing home situation, quite a bit is being done in larger centers, less in rural areas, to keep elderly patients at home under treatment, various kinds of home care plans, and here it does not take just the registered nurse or the professional nurse but a whole variety of helpers, like home help aides who can be trained on the job and who can do an amazing lot of work to help keep people at home and with a nurse visiting appropriately. We have been hearing some very good stories and examples of this from around the country. It is true, though, that there will be need to keep pushing at this to train more nurses, to know about home care. So many of our nurses have been employed in a hospital setting and in recent years we have been paying attention in our educational programs to the home setting also.

Nursing homes are a different problem. One of the solutions which I have some familiarity with is the short term training program mechanism which was mentioned in my testimony because it is possible to help nurses, both registered nurses, practical nurses, a variety of kinds of nursing assistants, know more about the care of elderly chronically ill patients.

One of the saddest things that happens is that some nurses who haven't worked for 10 or 15 years, haven't worked in nursing, come back to nursing; they think a nursing home may be an easy place to work. Well, it is not an easy place to work. There are rehab kinds of nursing procedures. There are kinds of care going on that are fairly complicated. So, in order to bring good care to the nursing home population, there is constant need to upgrade.

A lot of this can be done through short-term courses. We are doing this in some of our cities.

Mrs. PIGGOTT. Here, again, in nursing schools we want to get our students out onto the community and give them experience in nursing homes, and so forth. We do this, but we could do so much more, and again it is financed.

Senator COTTON. Now, I am showing my ignorance, but I wish to be straightened out on one thing and it won't do any harm to have it in the record. What are the various gradations, if you call it that, of

nurses? You have nurses with baccalaureate degrees. You have nurses who are registered nurses but who have their training in the hospitals and did not go to nursing schools. You have the practical nurse who is not a registered nurse but performs certain functions.

Now, by and large, into what activities do the nurses with baccalaureate degrees go?

What is the practical distinction in the path that they follow as they go through their professional career between the baccalaureate degree nurses and the registered nurses in training hospitals?

Mrs. SCHAEFER. Could I give one example and then we will all contribute?

One very basic difference between the hospital-based nursing program and the products of that program and the products coming out of the baccalaureate schools has to do with the question you asked previously regarding the community. Since time immemorial the graduates of the baccalaureate schools of nursing have always had community nursing exposure and practice. Large numbers of our students have traditionally been the public health nurses. There is one very important distinction which I contribute.

Mrs. PIGGOTT. I would agree. I think the baccalaureate nurses, a great many of them, do go into the public health service. The diploma, hospital-based student primarily functions as a registered nurse in institutions, hospitals, doctors' offices and because the baccalaureate programs do have the public health as part of their curriculum, the public health nursing organizations within cities are committed to the baccalaureate student first. Now, if they have room and if they can do it and they really try very, very hard, then our students do go and have some observation experience, and so forth. But it does not prepare them to go into public health nursing.

So they do go into nursing homes and more institutional care.

Senator CORRON. Important as it is, I assume that there is quite a drain on the nursing profession by the fact that the doctors grab off the best qualified nurses. You mentioned it is not very easy work in a nursing home but I would assume the work as an assistant in the doctor's office is, or in a group of offices or clinical offices would be found interesting and attractive to well trained nurses than almost any other field. It is not easy, but it is easier in a sense.

Miss MURPHY. It is very challenging, either in a doctor's office or a group of doctors as you state. I would point out one other characteristic of the 4-year baccalaureate graduate. She is basically a nurse, a nurse practitioner, clinical nurse. She is not ready to go to teaching nursing. There was confusion that she was ready for supervision, she was ready for teaching, because she did have a better basic education. We think of her as a nurse practitioner first. It is true she may go up the ladder faster because she does have her basic education behind her, she is ready for graduate study if she wishes to go on. She is ready for more rapid advancement, many times in hospital positions in other agencies.

But we really think of her as a nurse practitioner when she comes out of our 4-year school. We recommend her as that, but we don't say she is ready for the world.

There is one other type, Senator, the 2-year community college graduates which we have in increasing numbers around the country. They,

too, are registered nurses. They take the same licensing examination. They, too, may go on up the education ladder as the hospital graduates may. The 2-year college prepares the nurse really for institutional work, more than for the community.

So, we have three kinds.

Senator COTTON. But you envision the development to the point where nurses will be assistant doctors in the sense they can take some of the patient load off their hands.

Mrs. SCHAEFER. You might be interested to know that the association of deans in a national meeting here in Washington in February of this year agreed that what we needed to alter, and would commit ourselves to the alteration of, our baccalaureate nursing programs so that increasingly we would be turning out nurses who would not have to be trained by a physician to do a physical examination, for example, but we would build that into our nursing education so that in the future our graduates will come out prepared to function in this fashion.

Senator COTTON. Unfortunately, we are a little pressed for time. I have one more point. If you spent your childhood in Ashland, you know the country towns I represent.

Mrs. SCHAEFER. You are right.

Senator COTTON. We have situations there that are really as appalling in one sense as in the city ghettos. We have situations where someone has a heart attack, there isn't a doctor to render any first assistance. There is no nurse to give a hypo or whatever might keep the heart going. They bundle them in an automobile and drive 25 or 30 miles to a county seat hospital, and they die on the way. It has happened. It is not rare at all. It is a common occurrence. There isn't available in the community a district nurse or anybody who could save that life immediately after the emergency occurred. So that if there is some way of both the nurses and these returning corpsmen who have special training, if there is some way of diffusing them into these areas it really is a difference between life and death to many, many people. You know that because you know the country.

Mrs. SCHAEFER. One of the points that Mrs. Piggott was making, I am not exactly sure that we are going to be terribly successful in getting recent graduates out into those rural areas which you referred to and which we all know exist. I think much more important would be to get into those communities, and there is no community without some nurses, many of whom are not practicing today, but if you could set up a program along with a sensible system for the delivery of health care, and capitalize on the nurse in the community who is married, her home, her commitment is there, get her prepared to do this, I think we might be on our way to finding some answers.

We have been totally frustrated in our effort to do this.

Miss MURPHY. Project money could help us with these training courses. The health service and research and development outfit has a plan which would help prepare primary care nurses for just that setting.

Senator Cotton, we may have missed someone. Is it not true, Miss Halloran, you are a native of New Hampshire? Miss Constance Halloran, our AMA staff member. I would want you to know it.

Senator COTTON. So this is New Hampshire's day in court. I go for days and days listening to these people from the State of Washington.

I wish that we had more time. We thank you for your presentation which is an excellent presentation. You may be assured that we will go just as far as we can go and get away with it.

STATEMENT OF THE AMERICAN NURSES' ASSOCIATION

Senator COTTON. The subcommittee has received a statement from the American Nurses' Association regarding social rehabilitation training grants which will be included in the record.

(The statement follows:)

The American Nurses' Association, the national professional organization of nurses, is particularly concerned at the proposed cutback in training grant support for the three graduate programs in nursing that prepare nurses for leadership roles in rehabilitation throughout the country. The three programs are New York University, Boston University and the University of Washington in Seattle.

To give this committee some feeling for what is being accomplished currently with those training funds, I will quote for the record a portion of a progress report from Boston University prepared by Miss Lena Plaisted.

"By June, 1971, approximately one hundred and ninety nurses will have completed a graduate specialty program of study in rehabilitation nursing at Boston University. The graduates are making an impact on the rehabilitation movement through the leadership positions they hold as faculty members in schools of nursing; as consultants, staff members or clinical specialists in public health settings; as directors, supervisors, head nurses, researchers, inservice educators and as clinical specialists in general hospitals, as well as in chronic disease hospitals or rehabilitation facilities. Graduates of the program are being sought as clinical specialists in increasing numbers throughout the country largely due to the excellent manner in which former graduates have demonstrated their ability to assist patients to achieve optimum function and to assist all levels of nursing practitioners to implement changes in rehabilitation nursing practices. Twenty-five graduates are employed in this capacity in hospitals.

Fifteen graduates are employed in public health settings are involved in giving direct service to disabled patients and/or assisting staff including aides to provide service that is rehabilitative in nature. Two of these are working with American Indians.

"Forty-five graduates are on School of Nursing faculties. Six are teaching rehabilitation nursing in graduate programs, twenty-six are integrating rehabilitation programs at the baccalaureate level, five teach in Associate Degree programs, five in diploma programs and three in schools for practical nurses. The contribution of these faculty members to spreading the rehabilitation aspects of nursing throughout the curricula cannot be overemphasized. If the health care of our nation is to be improved, the educational program for future nurse manpower must include rehabilitation concepts and skills.

"Twenty-four other graduates are employed full-time and nine part-time in hospitals within the U.S.A. in a variety of capacities. Four are working in Veterans Administration hospitals, one is in the Army Nurse Corps. One graduate is a vocational counselor in Connecticut.

"The impact of these graduates on the rehabilitation movement throughout the United States as well as internationally is geographically significant. They are employed in twenty-eight states including Alaska and Puerto Rico, and in seven foreign countries. All report they are doing some teaching of rehabilitation nursing either with patients, families, students of nursing or nursing personnel. All appear to be dedicated to rehabilitation nursing through their direct or indirect care activities, research, teachings, writings, committee work and speech making and are spreading the "gospel of rehabilitation."

The other schools involved could report similar results.

You are all well aware that traumatic injuries, surgery, strokes, neurological diseases and other conditions can seriously incapacitate people of all ages. Proper medical care can sometimes make it possible for normal activities to be resumed provided that appropriate rehabilitation measures are taken promptly. The nursing staff, responsible on a 24-hour basis for patient care in hospitals and nursing homes, as well as in other settings, must be prepared to provide this care in an effective way. Well-prepared nurse specialists can teach, guide and supervise all members of the nursing team and they can assist families and patients to assume appropriate roles in the whole patient care process.

The long term benefits of effective rehabilitation saves lives and money. In the long run the effects of the cutback in training grants for the institutions preparing rehabilitation experts, at a time when educational institutions are in serious financial difficulties and student costs are rapidly escalating, seems very short sighted.

STATEMENTS OF:

GEORGE J. SCHWEIZER, JR., PRESIDENT, UNITED CEREBRAL PALSY ASSOCIATIONS, INC., COLUMBUS, MISS.

REV. WILLIAM R. FORTNER CHAIRMAN, UNITED CEREBRAL PALSY ASSOCIATIONS, INC., GOVERNMENTAL ACTIVITIES COMMITTEE, EAST BRUNSWICK, N.J.

ACCOMPANIED BY ELSIE D. HELSEL, PH. D., WASHINGTON REPRESENTATIVE, UCPA

CEREBRAL PALSID CHILDREN

Senator COTTON. Mr. George Schweizer must leave soon so we will call him now.

Mr. SCHWEIZER. I gratefully appreciate your taking me since I do have another meeting to go to this afternoon.

Senator COTTON. I am commanded to take you by my friend, John Stennis. So I have no choice.

Mr. SCHWEIZER. I am George Schweizer. I am a professional attorney by education and volunteer for United Cerebral Palsy and serving my second term as president of the organization.

This organization represents the needs of over 700,000 individuals with cerebral palsy throughout the country. I have with me Rev. William Fortner on my right, also a volunteer and chairman of our governmental activities committee and also Dr. Elsie Helsel, director of our Washington office.

Senator COTTON. We are glad to have you with us.

Mr. SCHWEIZER. Because of the time, I am going to just briefly go through this. I am going to summarize the testimony which has been prepared and is to be put in the record, as I understand.

Senator COTTON. Your full statement will go in the record. Don't feel too pressed because you have come a distance.

Mr. SCHWEIZER. As I guess you can see, I am what you might call a grassroots president of the organization, having spent now 14 years as a volunteer. In the past year and a half I have had occasion to visit in a number of the States, in West Virginia just last month and in Illinois. I have spent some time in Wisconsin, in South Carolina, New York, many of the States, Indiana, and one of the things I have seen, and this is one of the reasons I took a day from my office to come up here to testify to you gentlemen is the very point that this legislation would reach. There are two things. You will see in our testimony pictures of children. One of them happens to be from Wisconsin, a young boy who would have spent his life in the crib as shown in the first picture but for the help that he has received. The other picture is a young girl who received her aid from the Warren G. Murray Center in Illinois.

This brought the two individuals to one stage. In the case of the little girl she is on wheels. They both are now able to get out and start the first perimeter in society. But they grow older and they are going to need greater help later on. There is nothing that any one health organization can do to care for these all the way through. The cost, I am sure you are aware, is quite staggering over a period of a lifetime if you didn't do anything but think of an individual in the con-

cepts of "warehousing." This act is an innovative piece of legislation. What is more important if we can get the appropriations increased we can fill in a very important and needed gap across the country.

What has been recommended in past years has far exceeded what has been appropriated to date. This \$11.2 million is a very small amount. For example, as applied to some of the States, in West Virginia where I was last month, it would mean they would only get \$103,000. I know from my talks with the people there that that would not begin to do the work. But the real thing that has concerned me, and I want to stress this to you, is the cost of not doing this. This is the thing which has come to me so vividly in the last not only 14 years but particularly in the last 18 months.

It is costing us untold sums to fill this gap. We get the various quality organizations that are now working on it, other assistance available through the State, get most of these to a certain stage, but this act and additional money can carry them what I call the last part of the bridge that they really need, the last gap. If we don't do something about this the cost indirectly no one can guess, but directly it is really staggering to us. The end result, of course, will be that these people once aided and made possible to get in the mainstream of society to earn a living will in turn eventually be paying back what we spent. It is like an investment, in my mind. It will come back to us in the way of far more dividends than we could even begin to talk about.

Now, I will go ahead and have Bill Fortner here discuss it in more detail with you and then be available for questioning.

Mr. FORTNER. I want to say, first, that I can go one better than most of these people. I am not from New Hampshire, but I flew down here from Lebanon yesterday where I am vacationing. So I have been there probably more recently than you have.

Senator COTTON. I wish I was there now.

Mr. FORTNER. I must say the weather is very pleasant. You are missing some very nice weather.

I just want to mention particularly the highlights of several of these activities which we think need more substantial funding, particularly.

Mr. Schweizer has mentioned the Developmental Disability Act. I want to comment to Chairman Magnuson, speaking about eliminating feuds among various peoples and groups who want a share of the pie, this group wants more to bring voluntary help and consumer organizations together so that we have to seek no longer any particular vested self-interest, cerebral palsy or epilepsy or whatever.

We have through the bill and the reorganization of that particular department of HEW a broader spectrum, a look in a much broader sense and it has eliminated much of these feuds that we mentioned before.

Senator COTTON. You have become allies instead of competitors.

Mr. FORTNER. Precisely. The bill has been positive in that respect. It is bringing us together, too, in our planning in the sense that we don't want to compete with one another, nor do we wish to duplicate services. The figures you have before you as recommendations are not only ours in that respect but they are the figures that are derived from

a consortium of voluntary agencies, consumer groups such as the National Association for Retarded Children, Council for Exceptional Children, Epilepsy Foundation, and, of course, our own United Cerebral Palsy. Several things should be pointed out. The \$11.2 million gives to my State of New Jersey, \$305,000. That is, as Mr. Schweizer points out for West Virginia, a very small and perhaps unrealistic amount. We think that the \$40 million as the testimony says, blue sky, nor do we think as all the Senators pointed out it is unrealistic. The authorization was \$105 million. We understand that that is "Alice in Wonderland" but to quote Lewis Carroll in Alice in Wonderland, "It takes all the running we can do to stay in place."

We don't think funding the same thing a second year with the same figure is staying in one place. We feel that \$40 million is a very realistic thing.

In some other areas we do not believe this is the only place that we need to put some emphasis. For example, under the act, section 4, the project grants, we have a work study program that is oriented toward seriously disabled teenagers and adults, allowing sheltered workshops to adopt certain equipment so that people in sheltered workshops may become more self-sufficient people.

The hospital improvement and in-service training is another place where the health care personnel, the nurses we have been talking about, are trained to deal with the severely and multihandicapped individuals where they reside. The Vocational Rehabilitation Act is what Mr. Schweizer was talking about in terms of investment. There is a negative aspect as well as a positive.

What we have is a positive way of dealing with this. It also has economic overtones that a person who is not doing any work and who is capable of it is not only returning income through taxable income but he also is not using public funds in order to exist.

Two hundred fifty thousand cerebral palsied individuals could use some kind of service in vocational rehabilitation. Our estimate is that only 1 or at the most 2 percent of those people, those 250,000, are receiving that kind of help and money, of course, is the issue there. In terms of the International Institute of Neurological Diseases and Stroke, Dr. Chapman mentioned that.

For cerebral palsy there is a perinatal project, research project, and \$100 million has been spent in that. This is the seventh and final year. The children need that final examination if that study is to be effective. Yet the administration is suggesting a reduction in that figure, not even funding at the present level. We think that is undoing the good of the previous 6 years of the study. We figure 21,000 children are born with cerebral palsy each year, 175,000 mentally retarded, another 117,000 with epilepsy. Taking the cerebral palsy individuals about which we know the most, the cost of the lifetime care of those 21,000 born this year will amount to \$1.7 billion. A reduction of 10 percent would repay the entire cost of the whole appropriation. In terms of the National Institute of Child Health and Human Development, we are dealing particularly with prematurity which is tops on our list of where research needs to be put.

Family planning information has to be available to high risk mothers in order to avoid the incidence of prematurity and thus put us out of business over the long run in terms of preventing cerebral palsy.

Both in maternal and child health there is the matter of crippled children service, the needs of children with multiple disabilities. If we have care here it prevents secondary disability from taking place.

As Dr. Chapman and the nurses have pointed out, one half of that money under maternal and child health is for training professional and paraprofessional personnel through those university-affiliated facilities which Senator Hartke was speaking about. So that we are getting together. We see the needs in collaboration. Trained personnel is the greatest single need in delivery of service to the disabled. Those figures are before you.

Our recommendations represent the considered opinions of cerebral palsy and also these other groups in the consortium.

May I say that it is easy in dealing with such large figures and for those of us even who get into national positions on these particular groups, to see all of these matters in terms of just more dollars and just more figures and more charts and more tables. I know we have to remind ourselves, at least I have to remind myself, that these are not simply appropriations or more figures to be put somewhere. They are a hope for the future, the people who have cerebral palsy now and the people who are going to be born with it during this year, and hopefully the day will come when there will be less and less and then none.

The dollars that we should be giving them for their proper care and concern provides not only funding for this not to happen but I think it provides them with a feeling that their lives are not useless and they have some warm friends for their spirit.

I am sure that the committee understands this. We appreciate very much the opportunity to be here and to share this concern with you.

The cerebral palsy child I know just by observation, they have no other real way to realize their human potential without our help. That restricts life to a very narrow sense and they deserve all we can do for them. We will appreciate any consideration you can give us.

(The statement follows:)

I am George J. Schweizer Jr., President of UCPA, Inc., a national voluntary agency whose business is representing the health, educational, social and welfare needs of the nation's 700,000 individuals with cerebral palsy. With me are the Reverend William Fortner, Chairman of our Governmental Activities Committee and Dr. Elsie Helsel, Director of our Washington Office and a mother of a 25-year old son with cerebral palsy.

To conserve time we should like the Committee's permission to have the full statement which we have prepared included in the record. We will merely highlight the points we feel are most significant.

First, we should like to direct your attention to Attachments I and II which are pictures of two children with cerebral palsy.

These pictures show clearly not only what a child substantially handicapped by cerebral palsy looks like, but what can be done, within present knowledge, to help even severely handicapped individuals function more effectively and happily in our society.

The little boy, Joel, lives in Wisconsin. If he had not been fortunate enough to be born there, he could have spent his life in that crib, curled up like a pretzel, staring at the four walls of his ward. Instead, Joel is in a class for the trainable retarded, developing skills which will enable him to eventually work in a sheltered workshop and earn part of his way in this world.

The little girl was fortunate enough to be born in Illinois. Her family brought her in desperation to the Warren G. Murrery Center there. She, too, could have spent her life either lying in bed or lying on the floor with her only diversion staring at the ceiling. Because of the skillful nursing and therapeutic care which she received at Warren G. Murray, she is now properly supported and positioned in her wheelchair. She can see what is going on around her and learn as other children learn from observing their environment. She is "on wheels" and can go out of her ward to school, to recreational programs, to shopping centers, and to church. She, too, will be able to earn part of her way when she gets older.

Unfortunately, most individuals as substantially handicapped as these two children are not so lucky. They do spend most of their lives as bed cases in institutions for the retarded where they require complete nursing care.

Cerebral palsied children such as these need a host of services that cost more than most families can afford. They require a multiplicity of service programs that no single health agency can provide. Because many of the people with cerebral palsy have common program needs with persons having other conditions that originate in childhood, United Cerebral Palsy Associations joined with other national groups such as the National Association for Retarded Children and the Epilepsy Foundation of America in working for the passage of PL 91-517, the Developmental Disabilities Services and Facilities Construction Amendments of 1970.

We should like to address your primary attention to the appropriation for this legislation, since it does have the potential for meeting needs which are as yet unmet; serving substantially handicapped individuals who are as yet unserved.

TITLE I -- THE DEVELOPMENTAL DISABILITIES ACT

As you know the Developmental Disabilities Act extends and broadens the mental retardation legislation of the past decade. Cerebral palsy and epilepsy are included in this legislation for the first time.

The President's Budget request for both FY 1971 and 1972 is \$11.2 million for planning, services and construction of facilities for the developmentally disabled. The inadequacy of this request comes clearly into focus when you look at the appropriation in 1968 of \$14.808 million for construction alone of facilities for the mentally retarded only.

In subsequent years when the appropriation covered both construction and staffing the amounts were \$32.958 million in 1969 and \$27.983 million in 1970. At a time when costs are increasing, coverage is being broadened to include cerebral palsy and epilepsy and the funds are to be used for services and planning as well as construction, the budget request is reduced by one-half!

THE NUMBERS GAME

It should be remembered that the Developmental Disabilities Act was intended to serve people who are substantially handicapped. It is estimated that six million persons in the United States (about three percent of the population) are mentally retarded. Not all of this group are substantially handicapped. Of this number some five million people (2.5 percent of the population) are classified as mildly mentally retarded; one million individuals (.5 percent of the population) are moderately, severely and profoundly retarded. The Developmental Disabilities Act was intended to serve this latter group which is considered "substantially handicapped."

In addition, one million (.5 of a percent) of those who are mildly retarded have complicating problems over and above their retardation. These individuals also need DDA services. The remainder of the mildly retarded are, for the most part, potentially capable of being served

through other programs for the handicapped such as special education and vocational rehabilitation.

Adding together this group with the moderately, severely and profoundly retarded we have a target group of substantially handicapped mentally retarded of one percent of the population -- two million individuals. The Division of Developmental Disabilities uses this figure in its projections. As nearly as we can determine only about one-fifth of the retarded population labeled "substantially handicapped" is being served in some fashion today.

As for the nation's 700,000 children and adults with cerebral palsy, 500,000 are also mentally retarded. These individuals with a multiple handicap are substantially handicapped. Of the approximately 200,000 persons who fall within the "normal" range of intelligence, there are approximately 37,500 individuals who are so severely physically disabled as to be "substantially handicapped." Our UCP affiliates report that only one-tenth of this substantially handicapped group is presently receiving any service.

The Epilepsy Foundation reports that of the two percent of our population who have seizures, .5 percent are substantially handicapped and are not receiving services.

SERVICES

The Developmental Disabilities Act is an innovative piece of legislation which is intended to serve previously unserved or inadequately served substantially handicapped individuals by filling in the gaps in service programs -- particularly at the community level.

It is intended to help states and communities move closer to their stated goals of comprehensive lifetime services for a segment of our handicapped population which up to a decade ago had no community services and no alternatives for lifetime care but the large public institutions.

The DDA is intended to provide the substantially handicapped and their families with acceptable alternatives for services, primarily at

the community level, which supplement not supplant existing public and private services. Thus substantially handicapped children can live at home with parents for much longer periods and adults can continue to live in the community in alternative living arrangements after parents die.

COSTS

What is the cost of not adequately funding this Act?

What will happen if community services are not developed?

The alternative to not developing comprehensive community programs for these people is placement in a residential institution -- unless you want to espouse a policy of euthenasia! The cost figure for institutionalization over a lifetime is staggering. For cerebral palsy alone, using a cost figure of \$8,000 per year for adequate institutional care, the total is about \$320,000 for one individual over his lifetime. Even the cost of simply "warehousing" a single cerebral palsied individual using a cost figure of \$4,000 for forty years is \$160,000! With adequate supportive services for families and appropriate training for the handicapped individual, this same individual could be able to stay in the community and could be able to earn part of his own way. Truly, habilitation and rehabilitation programs pay off in dollars as well as in more meaningful and happier lives for handicapped individuals and their families.

Yet at the present proposed budget of \$11.2 million for Title I let us look at what individual states will receive in order to develop needed programs. (See Attachment III)

Massachusetts	\$243,162	Mississippi	\$156,094
New Hampshire	\$100,000	Illinois	\$477,111
New Jersey	\$305,244	South Carolina	\$161,653
Delaware	\$100,000	New Mexico	\$100,000
West Virginia	\$103,324	Hawaii	\$100,000

Washington \$153,897.

It is clear that the \$11.2 million for Title I is a long way from a "meet need" figure. The fiscal 1972 authorization of \$105 million for Title I is almost 10 times as much! This is not a "blue sky" figure. It was arrived at only after careful consideration of the numbers of people now receiving services, the present limited scope of services -- especially among the adult population -- the numbers of people who still require services and facilities, and the types of services needed in order to provide a comprehensive community program.

Let us give you one example of costs for providing a comprehensive program in a community. UCP of Northern New Jersey has developed a proposal for an interagency service program for the developmentally disabled to be operated jointly and located at the New Jersey College of Medicine and Dentistry in Newark. Plans call for serving a broad segment of developmentally disabled individuals within a nine county area, with priority given to the model cities residents. The UCP affiliate has already received the enthusiastic support and commitments of participation from the College, United Hospitals of Newark, the Referrals Workshop, the Upper New Jersey Chapter of the Multiple Sclerosis Society, the New Jersey Chapter of Epilepsy Foundation, the New Jersey Association for Children with Learning Disabilities, the New Jersey Division of Mental Retardation Department of Institutions, the State Rehabilitation Commission, the Hospital and Health Council Metropolitan New Jersey. The State Department of Higher Education in the Newark Housing Authority have also offered encouragement for the plan.

We site the many agencies involved in such a program because this offers a classic example of planning for coordinated, continuing, and comprehensive, community services for the target population of the developmentally disabled. Under the Plan, nine separate agencies would deliver the range of services required by an estimated 197,950 people. The projected cost for 1972 is estimated at more than one million dollars but the entire State of New Jersey would receive only \$300,000 if the

Developmental Disabilities Act is funded at the \$11.2 million level.

UCPA urges your support for the requested increases for Title I from \$11.2 million to \$40 million. This would permit an increase in the present level of funding for mental retardation programs while facilities and services for persons severely handicapped by cerebral palsy and epilepsy also are being phased in. The increase will also more than triple the share states will receive under their formula grants.

Although staffing for the newly established Division of Developmental Disabilities is included in another budget -- not under consideration here -- UCPA would like to direct the Committee's attention to this matter briefly. Our testimony repeatedly has pointed out the expanded nature and scope of the Division's responsibilities now that the cerebral palsied and persons with epilepsy and other substantially handicapping developmental disabilities have been mandated for services. In view of this situation, we strongly believe that if the Division is to implement the legislation effectively, it must have additional personnel, including at least one person with expert knowledge of cerebral palsy.

TITLE II -- THE DEVELOPMENTAL DISABILITIES ACT

Title II concerns University Affiliated Facilities. There are now 19 approved facilities that provide a resource for training the manpower essential for working with the developmentally disabled. To be truly effective in working with people who have developmental disabilities personnel must be trained to work as an interdisciplinary or cross-modality team. Such training is not possible under the traditional single discipline approach used in our universities. The University Affiliated Facilities are to provide a new pattern.

In addition to training manpower, UAF's have as their mission the demonstrating of new and improved methods for treatment and training those who have been stricken with substantially handicapping disabilities. The President's Budget did not include any request for University Affiliated Facilities. UCPA joins with the other members of the Ad Hoc Liaison Group

in recommending that Title II of the Act be funded with \$10 million for core support and \$5 million for construction.

OTHER PROGRAMS SERVING THE SUBSTANTIALLY HANDICAPPED

In singling out the Developmental Disabilities Act for special consideration we do not wish to imply that we do not support increased appropriations for other programs administered by the Division of Developmental Disabilities and other programs administered by agencies within the Department of HEW which are meeting service needs of less severely handicapped individuals. We have appended a chart of the fiscal 1971 and 1972 requests of some of the agencies of prime interest to United Cerebral Palsy and the recommendations of the Ad Hoc Liaison Group on Developmental Disabilities, a consortium of voluntary agencies interested in the handicapped. Membership in this group consists of United Cerebral Palsy, National Association for Retarded Children, Epilepsy Foundation, American Association on Mental Deficiency, National Association of State Mental Health Program Directors, National Association of Coordinators of State Mental Retardation Programs, and the Council for Exceptional Children.

Briefly, we should like to call your attention to specific activities authorized under these programs that benefit the cerebral palsied.

Developmental Disabilities Act - Section 4 (a) (1)

Presently, UCPA is developing a work-oriented program for seriously disabled teenagers and adults under a Section 4 (a) (1) grant. Guidelines developed through this project will enable sheltered workshops to adapt equipment and procedures so that individuals with severe physical disabilities who heretofore could not function in such settings, will be able to do so.

Hospital Improvement and Hospital In-Service Training

HIST Project Grants have enabled UCPA to conduct numerous special training programs for contact care personnel in state institutions where

many severely and multiply handicapped individuals reside. We know the quality of care available to many of these children and adults has been considerably upgraded. The employees who received training now have a better understanding of this group and its special needs, and they are utilizing improved techniques in the management of these patients.

Vocational Rehabilitation Act

For every dollar spent on vocational rehabilitation services, from two-to-five dollars is returned to the community in taxes. Experience has proved that with rehabilitation services, it is possible to remove disabled public assistance recipients from welfare rolls. Over 250,000 individuals with cerebral palsy could benefit from such services.

National Institute of Neurological Diseases and Stroke

UCPA's prime concern is for the Collaborative Perinatal Research Project which already has provided much important data about mental retardation, cerebral palsy and other related disorders. Almost \$100 million has been spent on this project to find the causes of these conditions. The funds being recommended are not sufficient to permit the final examination of the children in the study now reaching their seventh birthday. They will never be seven again, and the completion of this final examination -- of particular relevance to the more subtle disabilities such as dyslexia and minimal brain dysfunction will be forever lost.

Unnecessary delay in finding a solution to these disease problems is high -- not only in human misery but in dollars as well. Next year about 21,000 children will be born crippled from cerebral palsy, 175,000 will be born who are destined to be mentally retarded and another 17,000 will become epileptic. The cost of lifetime care of the 21,000 cerebral palsied children alone will easily exceed \$1.7 billion. A reduction of this group by as little as 10 percent could repay the entire cost of this vast research project in one year.

National Institute of Child Health and Human Development

Research activities particularly important to UCPA's sphere of interest are being undertaken in prematurity, which has a close correlation with cerebral palsy. In fact, prevention of prematurity is UCPA's top priority research and program effort. NICHD is also conducting research in nutrition of mothers and children in order to determine the effects of malnutrition on the infant brain, on birth weight and intellectual development. Since cerebral palsy and other developmental disabilities occur more frequently in "high risk" mothers, UCPA is most anxious that NICHD's family planning research activities be fully funded. We believe that if family planning information were available to "high risk" mothers, the incidence of prematurity, cerebral palsy, mental retardation and other congenital anomalies could be significantly reduced. At this point in time, prevention of these conditions is our best hope.

Maternal and Child Health

Crippled Children's Services and Maternal and Infant Care Projects continue to provide vital underpinning for meeting the program service needs of children with multiple disabilities. The M & I projects in particular are vital because they provide follow-up of "high-risk" mothers and infants; and thus contribute to prevention of secondary disabilities.

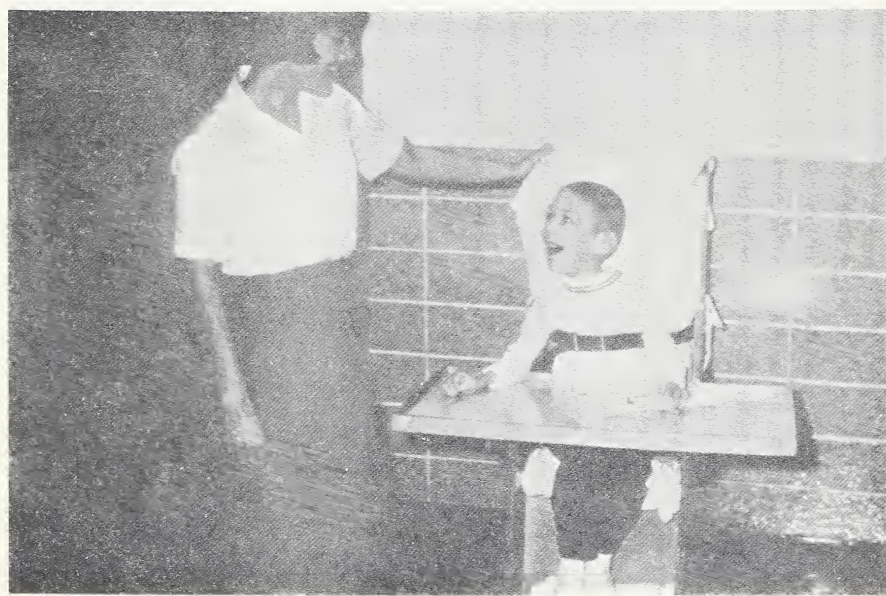
About one-half of the money requested under Section 511 would be utilized for training of professional and para-professional personnel through the University Affiliated Facilities. Trained personnel is the greatest single need in the delivery of service to the developmentally disabled.

CONCLUSION

We have tried to explain why appropriations for PL 91-517 should be raised to \$40 million and why other programs designed to meet more adequately the needs of the multi-handicapped population should not fall victim to indiscriminate fund cuts. The figures, tables and charts speak for themselves.

However, we refer you again to the two pages of photographs attached to this statement. All that we have been trying to say is dramatically summed up here. With appropriate service programming these two children -- and thousands like them -- can grow up to be partially self-supporting citizens, paying part of their own way, making their contribution to society, living meaningful, productive lives. Or, they can be relegated to existing as bed-fast cases in institutions for the retarded, living out an endless succession of purposeless tomorrows. Adequate funding for the Developmental Disabilities Act could make the world of difference.

Attachment I



Attachment II



ATTACHMENT III

ALLOCATIONS TO STATES FOR THE DEVELOPMENTAL DISABILITIES
SERVICES AND FACILITIES CONSTRUCTION ACT OF 1970
For Fiscal Year Ending June 30, 1971

TOTAL	\$11,102,850		
REGION I	\$766,153	REGION VI	\$1,160,043
Connecticut	122,991	Arkansas	121,154
Maine	100,000	Louisiana	215,176
Massachusetts	243,162	New Mexico	100,000
New Hampshire	100,000	Oklahoma	134,912
Rhode Island	100,000	Texas	588,801
Vermont	100,000		
REGION II	\$1,261,700	REGION VII	\$574,241
New Jersey	305,244	Iowa	136,155
New York	751,467	Kansas	110,618
Puerto Rico	200,536	Missouri	227,468
Virgin Islands	4,453	Nebraska	100,000
REGION III	\$1,267,954	REGION VIII	\$606,142
Delaware	100,000	Colorado	106,142
Dist. of Columbia	100,000	Montana	100,000
Maryland	175,632	North Dakota	100,000
Pennsylvania	551,134	South Dakota	100,000
Virginia	237,864	Utah	100,000
West Virginia	103,324	Wyoming	100,000
REGION IV	\$1,807,816	REGION IX	\$1,167,578
Alabama	214,113	American Samoa	2,246
Florida	325,704	Arizona	100,000
Georgia	253,568	California	850,927
Kentucky	183,167	Guam	6,701
Mississippi	156,094	Hawaii	100,000
North Carolina	288,627	Nevada	100,000
South Carolina	161,653	Trust Territory	7,704
Tennessee	224,890		
REGION V	\$2,037,326	REGION X	\$453,897
Illinois	477,111	Alaska	100,000
Indiana	248,740	Idaho	100,000
Michigan	408,436	Oregon	100,000
Minnesota	184,913	Washington	153,897
Ohio	506,562		
Wisconsin	211,564		

NOTE: Basis of allocations, per requirements of P.L. 91-517, Title I, Part C:

- Total population, as estimated by the Bureau of the Census:
 - Provisional estimated population of the United States, Oct. 1, 1970, PC(pl)-1;
 - American Samoa, Guam, Puerto Rico, Trust Territory of the Pacific, and Virgin Islands, provisional estimates as of July 1, 1969, (Unpublished data).
 - Extent of need, as represented by provisionally estimated population under age 18 as of July 1, 1969 (Series P-25, No. 437, January 16, 1970.)
 - Financial need, as represented by average per capita income 1967-69 published in August 1970 issue of Survey of Current Business, Department of Commerce.
- 1/ Based on 1971 appropriation of \$11,215,000 less one percent for evaluation purposes, per Section 513, PHS Act (P.L. 91-296).

DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
SOCIAL AND REHABILITATION SERVICE
Rehabilitation Services Administration

April 15, 1971

ATTACHMENT IV

BUDGET RECOMMENDATIONS--FISCAL 1972--AS APPROVED BY AD HOC LIAISON GROUP (IN MILLIONS)

<u>Administering Agency</u>	<u>FY 1971</u> <u>Appropriation</u>	<u>FY 1972</u> <u>Request</u>	<u>Recommendation</u>
Division of Developmental Disabilities (Rehabilitation Services Administration) (Title I)-Developmental Disabilities	11.215	11.215	40.00
(Title II)-University Affiliated Facilities	0	0	10.000 (core support) 5.000 (construction)
Hospital Improvement Projects			
Hospital In-Service Training	8.300	6.500	6.500
Continuation Staffing Grants (PL 90-170)	9.775	10.075	10.075
Section 4 (a) (1) (Project Grants under Vocational Rehabilitation Act)	5.500	7.000	7.000
Rehabilitation Services Administration			
Vocational Rehabilitation Act			
Section 2-Allotment Base	515.0	530.0	600.0
Section 2-Grants to States	503.0	518.0	575.0
Section 4-Research	31.835	24.937	31.635
Section 4-Training	27.7	14.65	27.7
National Institute of Neurological Disease and Stroke	106.651	95.496	144.000
National Institute of Child Health and Human Development	94.4	103.232	125.0
Health Services and Mental Health Administration (Maternal and Child Health-Section 511)	16.900	21.106	26.106
State Grants	117.850	119.650	124.650

RESEARCH PROJECT GRANTS

Senator COTTON. Thank you.

Mrs. HELSEL. I am here in support of my wonderful volunteers who go long distances and away from their vacation sites in order to appear before you.

Senator COTTON. There has been called to my attention a table in attachment 3. It appears that various small States, of which New Hampshire is one, receive an even \$100,000. That is in the form of grants, I believe. Does that mean that is a basic minimum and then the larger States are increased proportionately?

Mr. FORTNER. The formula is based on population, extent of need and percent of need in that particular State, with \$100,000 being the minimum.

Senator COTTON. Tell me about the research project grants.

Mrs. HELSEL. That figure perplexed me as I heard it come forth a little earlier in the morning. I sent back for the bill and the figures to find out what that is. The service project grants that are referred to on your budget sheets, I believe that \$23 million referred to the entire rest of the budget for the Division of Developmental Disabilities. If I add up there, there is section 4(a), vocational rehabilitation money and the other kinds of money they get, I come up with \$23 million. You remember this question came up when we talked about university affiliated, a request for appropriations for title II of the act is what that actually is. There was no Presidential request for university affiliated. This has nothing to do with university affiliated. There is nothing in here at all. The amount requested for them is zero. As you can see on our charts, we feel they ought to have at least \$10 million for core support running the program and \$5 million for at least one additional university-affiliated construction. Somehow they got spread out geographically in an unequal manner.

Senator COTTON. That is covered in Senator Hartke's proposal.

Mrs. HELSEL. Yes, title II.

The other money is not really concerned at all with title II, with university affiliated. This is just one of the items. There are other items included.

Mr. FORTNER. The bill has many fine features in it. Chief among them is that there was naturally an increase in the authorization, hopefully the appropriations would increase year by year in the 3-year life of the act. The university affiliated got nothing last year and the administration request is zero this year. We don't think that is giving the act any ability to prove itself.

Mrs. HELSEL. In the testimony I think we have given you some supporting data showing that the authorization request of \$105 million for the next year, this current 1971 year, was a pretty well documented request. We are trying to be reasonable in our expectations. On the other hand, we think if the act is not funded at least so that it can get off the ground, we are going to come back to you in 3 years and you are going to say to us: What did you do with that money? If we spread it around, \$100,000 to your State and \$100,000 to West Virginia, we are not going to be able to have a very good answer for you.

Senator COTTON. On the maternal and child health, even the hard-headed, tight-fisted Office of Management and Budget at least gave a tip-of-the-hat recognition of the need because I notice the items there have been increased over last year.

Mrs. HELSEL. A lot of these moneys go into prevention. There are things called maternal, while there are high-risk baby projects and maternal and infant care projects which have been exceedingly helpful in preventing cerebral palsy. More of that money is the money that the Senator was talking about in title II, the university affiliated. For 2 or 3 years they have had no appropriation. I am happy to see that, too.

Senator COTTON. You could not testify before more sympathetic ears on this subject because I have a brother who was born, when I was 13 years old, with a brain injury because of an instrumental birth, spastic, partially paralyzed all his life. I have maintained him. He could have, with proper training, been useful because even though his articulation is such that even I find it difficult all these years to understand what he is trying to say. Even though he can't read a newspaper, curiously enough he can take these scientific magazines, and figure out these complicated electrical diagrams; figure 1, figure 2, figure 3, they are all Greek to me. He can tinker with radios. When they have a short circuit in the local garage, a short circuit they can't find in a car, they take him and prop him up in a chair and he finds it. He could have years and years ago before his life was practically lived, become to a certain extent self-reliant and led a more useful life.

Mrs. HELSEL. You can see from the pictures of the children how they learn to support themselves so that they don't flop around.

Mr. SCHWEIZER. You have put your finger on the very thing that I tried to say earlier and why I am here. I have seen now in the travels I have mentioned that although we are doing what we can there are so many that are not getting as much as they can. I have seen a man who can't move anything but his head. He has a band around his head and a stick out here and he is painting. He does a beautiful job. I think of how many others we are not reaching. It is not impossible. The additional money here could make it possible.

Senator COTTON. It is very real to me. You may be assured of our sympathetic consideration.

Mrs. HELSEL. We appreciate it very much.

Mr. SCHWEIZER. Thank you very much for the opportunity to be here.

STATEMENT OF ARTHUR M. SACKLER, M.D., CHAIRMAN, NATIONAL
COMMITTEE TO SAVE OUR SCHOOLS OF HEALTH

Senator COTTON. A statement of Dr. Arthur M. Sackler, chairman of the National Committee To Save Our Schools of Health will be accepted and entered in the record at this time.

(The statement follows:)

Mister Chairman and members of the subcommittee, I am Dr. Arthur M. Sackler, Chairman of the National Committee to Save Our Schools of Health. I am also International Publisher of the Medical Tribune and Chairman of the World Health Organization's International Task Force on World Health Manpower.

The National Committee to Save Our Schools of Health was formed this year to focus public attention on the massive health manpower crisis currently faced by the United States. This crisis consists of three distinct, but interrelated, elements: (1) the overall shortage of health professionals; (2) the maldistribution of health professionals; and (3) the financial inability of the health professions schools to adequately respond to the shortage.

According to the U.S. Public Health Service and the various professional health associations, this nation faced a shortage in 1970 of:

- 48,000 physicians
- 17,800 dentists
- 150,000 nurses
- 8,700 optometrists
- 12,900 podiatrists
- 9,300 veterinarians
- 266,000 allied health professionals

This is truly a shocking situation. The United States has the highest gross national product of all the countries of the world, our citizens have the highest per capita income in the world, and we enjoy a higher standard of living than any other people. And yet, we somehow tolerate a massive shortage of workers skilled in bringing to us the great gift of human health. Moreover, the health manpower shortage is our only serious manpower shortage. In all other fields of endeavor we have managed to produce sufficient personnel to meet our needs.

As serious as the current situation is, the projected shortages for 1980 are even more frightening. By the end of this decade, given present policies, we will

be faced with the following health manpower shortages:

- 26,000 physicians
- 56,600 dentists
- 210,000 nurses
- 12,000 optometrists
- 14,100 podiatrists
- 9,900 veterinarians
- 432,000 allied health professionals

(It should be carefully noted that the latter category of health workers, "allied health professionals", includes the environmental specialists so urgently needed in the fight to save the earth itself from possibly irreparable damage.)

These stark figures represent millions of very real personal tragedies. The shortages translate into a lack of medical care for too many of our citizens. They translate into rapidly rising costs of that health care that is available for the majority of our citizens. And finally, the figures translate into a severe lack of preventive medical care needed to ward off chronic, crippling, and even fatal diseases and conditions.

The maldistribution of health workers is at least as serious a problem as the net shortage of these workers. As President Nixon pointed out in his recent health message to the Congress, over 130 U.S. counties have no doctors at all, despite the average of one doctor for every 630 persons in the nation. The president went on to explain that the distribution problem in center cities is equally serious, with some neighborhoods having as few as one physician per 12,000 people.

The regional maldistribution is also severe. According to 1968 figures of the U.S. Public Health Service, the Alabama/Kentucky/Mississippi/Tennessee region of the country had just 95 physicians per 100,000 population. The New Jersey/New York/Pennsylvania region, on the other hand, had 190 physicians per 100,000 population.

The third element of the health manpower crisis -- the financial problems of the health professions schools -- needs to be given priority attention if the shortage and distribution problems are to be solved. Additional practitioners can only be produced by creating new schools and expanding existing ones. Furthermore, the location of the schools, the curriculum emphasis, and the nature of the student assistance programs can have a major impact on the geographical distribution patterns of new practitioners.

Problems of health professions schools:

Almost all health professions schools are experiencing financial problems at the present time. During 1970 over half of the medical schools alone were awarded emergency Federal grants on the basis of financial distress.

Research cuts. A large part of the problem stems from the schools' dependence on research grant funds for operating support. Payment for overhead expenses, built into these research grants, is used by school administrators to pay the on-going costs of running the institution. The grants also include provision for salaries of the researchers. Most of the research directors, in turn, are faculty members of the schools, and are dependent for support to one degree or another on their research grants. In fact, about one-half the faculty members of medical schools are at least partially supported by these grants. Overall, almost fifty percent of medical schools' expenditures are supported by research grants, primarily from the Federal government.

The problem is that Federal research grants in recent years have been declining in some areas, and in other areas have been growing at a pace slower than the rate of inflation. For example, the research funds of the National Institutes of Health have remained at about the same level since 1966, while inflation has decimated the real value of these funds by 6 - 10% per year or more.

Expansion. With inflation and reduced research support hampering efforts of school administrators to operate their institutions, pressure to expand their production has increased. Federal legislation now requires all health professions schools

to continually increase their enrollments in order to be eligible for institutional formula grants. The deans, therefore, are being squeezed by conflicting pressures: expand outlook to deal with the health manpower shortage, but do it with continuously less financial support from the government.

Service income. Inadequate reimbursement for health services provided by the schools' teaching hospitals and clinics is another major problem. These hospitals are under increasing pressure to become involved in community programs for the disadvantaged as well as the Federal Medicare and Medicaid programs. Reimbursement for such program services is simply not adequate to cover their costs, so the hospitals and clinics constitute a major drain on the schools' budgets.

Closures. Since 1964, two dental schools and over 160 nursing schools (mostly hospital diploma schools) have closed their doors. One school of pharmacy is scheduled to close in 1972. In addition, many medical schools have warned that they, too, will be forced to close down if financial help is not forthcoming.

St. Louis University Medical School Dean Robert Felix has warned that his school may not be able to afford an entering freshman class in the fall of 1971.

Case Western Reserve University of Cleveland was saved recently only by a \$3 million emergency subsidy from the State of Ohio.

Marquette University's School of Medicine had planned to close, but was kept alive only by a grant from the State of Wisconsin and a change in its legal status from a private to a "semi-public" school.

Florida, New York, North Carolina, and Pennsylvania have also begun to bail out private medical schools in those states in recognition of the real danger that these schools would close down if not assisted. Pennsylvania, Illinois, and Kentucky are among several states which have done the same for dental schools.

Mister Chairman, on behalf of the National Committee to Save Our Schools of Health, I would like to offer some comments on the health manpower provisions of the Fiscal Year 1972 budget for the Department of Health, Education, and Welfare.

Medical, dental, and related health professions:

Institutional assistance. The administration is to be commended for requesting an increase for institutional support of health professions schools of more than \$100 million over the amount appropriated for Fiscal Year 1971. The total amount requested for this purpose -- \$271.6 million -- will certainly be of substantial assistance to the 275 schools of medicine, dentistry, osteopathy, optometry, podiatry, pharmacy, and veterinary medicine.

Student assistance. By contrast with the institutional grant request, the administration's request for direct loans to health professions students is a disappointment. Only \$22 million is requested for loans in FY '72 compared with \$25 million appropriated for this purpose in FY '71. Even that \$25 million was far below the \$43 million requested by the various schools last year. The need this year is expected to be even greater, given the higher total number of students enrolled and the higher percentage of minority-group students enrolled. It would seem necessary to appropriate at least twice the \$22 million request of the administration.

Several health manpower problems can be alleviated by an adequate loan/scholarship program, and without a massive outlay of funds. For example, a generous loan program with a liberal forgiveness provision could encourage new graduates to practice in health manpower scarcity areas. The clear-cut need for increased minority-group representation in the health professions could be at least partially met by a student assistance program funded adequately enough to support full-time students over several years of study.

Construction. If the health manpower shortage is to be overcome, additional schools must be built and existing schools must be expanded. The program of Federal construction grants is one of the nation's best hopes for closing the manpower gap. Unfortunately,

the administration has not seen fit to request an adequate appropriation for this program. Only \$96.7 million is requested -- less than the amounts appropriated in either of the two preceeding years.

Mr. Chairman, the health manpower shortage is worsening and the backlog of approved but unfunded construction projects is increasing. This is no time to cut back on our efforts to expand educational facilities. An appropriation approximately triple that requested by the administration would seem to be in order at this point in time.

Nursing:

The largest single health manpower shortage category is the field of nursing. We are currently 150,000 nurses short in this country and by 1980 that shortage is expected to increase to 210,000.

The president's budget for FY '72 does not illustrate much concern over the shortage of these primary-care specialists. In fact, the budget calls for a net reduction of \$6.6 million in nurse manpower programs. Much of this reduction is contained in the program of direct loans to nursing students. Only \$9.6 million is proposed for this purpose in FY '72, compared to \$17.1 million appropriated last year.

While it may not be economically feasible to adequately provide for the needs of every one of the country's more than 1300 schools of nursing, we should certainly not reduce our efforts in this area. I would recommend, at a minimum, a doubling of the administration's \$68 million request for nursing manpower programs with most of the increase concentrated in the areas of student loans and institutional support.

Public Health and Allied Health:

For schools of public health, the administration proposes to spend virtually the same amount in FY'72 as was appropriated for FY '71, despite the fact that last year the authorizing legislation for these aid programs was extended and expanded in recognition of the increasing importance of these schools. The U.S. depends upon the schools of public health to supply the qualified public health doctors, dentists, nurses, and other categories of public health manpower to staff state, city, and county health departments

and to meet the requirements of various Federal agencies for personnel trained in preventive medicine.

For Fiscal Year 1972, \$43 million is authorized for public health traineeships and institutional support of public health schools. The administration, however, is requesting an appropriation of only \$18 million for these programs.

The training of allied health professionals -- technicians, technologists, medical assistants, etc. -- constitutes one of the nation's best hopes for filling the gap between health needs and the delivery of health services. As is the case in the training of doctors and dentists, effectiveness in the delivery of services by the allied health professionals depends ultimately on the quality of the training received as well as the number of such health workers.

For Fiscal Year 1972, \$110 million is authorized for allied health manpower programs. This includes programs of construction grants, basic improvement grants, special improvement grants, special project grants, traineeships, scholarships, work-study contracts, and student loans. The administration, however, is requesting an appropriation of just \$26.5 million for allied health programs. Given the clearly recognized need for these specialists and the general acceptance of services provided by them, the administration's request is definitely inadequate. At least \$50 million ought to be appropriated.

Mr. Chairman, on behalf of the National Committee to Save Our Schools of Health, I would like to express my sincere appreciation for the opportunity to present testimony to your subcommittee. I hope our views will be of some assistance in your deliberations.

With your permission, I would like to attach to this statement a list of the leadership of the National Committee to Save Our Schools of Health.

COMMITTEE IN FORMATION

(Titles for identification only)

Chairman

ARTHUR M. SACKLER, M.D.
International Publisher, Medical Tribune
Chairman, International Task Force
on World Health Manpower
for the World Health Organization

Co-Chairmen

Honorable GEORGE W. BALL

Senior Managing Director,
Lehman Brothers, Inc.
Former Under Secretary of State

JOSEPH A. BEIRNE

President, Communication Workers
of America and Vice-President, AFL-CIO
Former Member, National Advisory
Commission on Health Manpower

Honorable KARL R. BENDETSEN

Chairman, Chief Executive Officer,
U.S. Plywood-Champion Papers Inc.
Former Under Secretary of the Army

JAMES H. BOND

Chairman of the Board,
Bank of Services & Trusts
President, Investment Bankers Inc.,
Dallas, Texas

KENNETH B. CLARK, Ph.D.

President, Metropolitan Applied
Research Center
President, American Psychological
Association

Honorable CLARK M. CLIFFORD

Clifford, Warnke, Glass, McIlwain,
and Emery
Former Secretary of Defense

NELSON H. CRUIKSHANK

President, National Council of
Senior Citizens
Member, Health Insurance Benefits
Advisory Council (Medicare)

JAMES FARMER

Former Assistant Secretary,
Department of Health, Education, and
Welfare. Former Executive Director,
Congress of Racial Equality

DOROTHY B. FERRELL, M.D.

Chairman, D.C. Commission on
the Status of Women
Past President,
National Council of Negro Women

CLARK KERR, Ph.D.

Chairman and Executive Director,
Carnegie Commission on Higher Education
Former President, University of California

MATHILDE KRIM, Ph.D.

Associate, Sloan-Kettering Institute
for Cancer Research
V.D. MATTIA, M.D.

President and Chief Executive Officer,
Hoffmann-La Roche Inc.
Presidential Appointee, 1969,
Metropolitan Chairman,
National Alliance of Businessmen

WALTER F. PATENCE

President, Wohler Corporation,
Lansing, Michigan
Chairman, Health and Safety Committee,
National Association of Manufacturers

NATHAN S. STARK

Senior Vice President, Hallmark Cards Inc.
Member, Liaison Committee on Medical
Education of the American Medical
Association

MARY E. SWITZER

Vice-President, World Rehabilitation Fund
Former Administrator,
U.S. Social and Rehabilitation Service

Honorary Co-Chairmen

Honorable WILBUR J. COHEN

Dean, School of Education,
University of Michigan
Former Secretary, Department
of Health, Education, and Welfare

Honorable LISTER HILL

Former U.S. Senator
Honorable PHILIP R. LEE, M.D.

Chancellor,
University of California at San Francisco
Former Assistant Secretary for Health
and Scientific Affairs, Department of
Health, Education, and Welfare

WILLIAM H. STEWART, M.D.

Chancellor,
Louisiana State University Medical Center
Former U.S. Surgeon General
LUTHER L. TERRY, M.D.
Vice-President for Medical Affairs,
University of Pennsylvania
Former U.S. Surgeon General

Executive Secretary

JOHN T. GRUPENHOFF, Ph.D.

Chairman, Science & Health
Communications Group
Former Deputy Assistant Secretary for
Health Legislation, Department of Health,
Education, and Welfare

Professional Advisory Board

JOHN E. AFFELD, M.D.

Medical Director,
Los Angeles County
Department of Hospitals
Chairman of the Board,
Council of Urban Health Providers

PETER L. ANDRUS, M.D.

Intern, Department of Community
Medicine, University of Pennsylvania
Former Regional Vice-President,
Student American Medical Association
Representing the Coalition of
Student Professional Organizations

JAMES E. BATES, D.P.M.

President, American Association of
Colleges of Podiatric Medicine
President, Pennsylvania College
of Podiatric Medicine

ABRAHAM B. BERGMAN, M.D.

Director, Outpatient Services, The
Children's Orthopedic Hospital and
Medical Center, Seattle, Washington
Associate Professor of Pediatrics and
Health Services, University of Washington

JAMES C. CAIN, M.D.

Professor of Medicine, Mayo Clinic
Former Member, National Advisory
Commission on Health Manpower

GORDON CHASE

Administrator, Health Services
Administration, New York City

MICHAEL M. DACSO, M.D.

Dean, Institute of Health Sciences,
Hunter College
Chairman, Committee on the Training
of Paramedical Personnel,
New York Academy of Medicine

SPURGED B. EURE, D.D.

President, Southern College of Optometry,
Memphis, Tennessee
President, Association of Schools
and Colleges of Optometry

JAMES C. HAUGHTON, M.D.

Executive Director, Health and Hospitals
Governing Commission of Cook County
Former First Deputy Administrator,
Health Services Administration,
New York City

JOHN C. HUME, M.D.

Dean, The Johns Hopkins University
School of Hygiene and Public Health
Former President, Association
of the Schools of Public Health

CARL E. MORRISON, D.O.

Former President,
American Osteopathic Association
Member and former President,
AOA Council on Public Education in Health

GEORGE C. POPPENS, K.V.M.D.

Dean, New York State Veterinary College
President, American Association of
Veterinary Medical Colleges

HOWARD A. RUSK, M.D.

President, World Rehabilitation Fund
Director, Institute of
Rehabilitation Medicine

MARGUERITE J. SCHAEFER, D.Sc.

Dean, School of Nursing,
University of Pittsburgh
Vice-President, American Association
of Deans of College and University
Schools of Nursing

GEORGE A. SILVER, M.D.

Professor, Yale University School
of Medicine

LAWRENCE C. WEAVER, Ph.D.

Dean, College of Pharmacy,
University of Minnesota
Member, Executive Committee,
American Association of Colleges
of Pharmacy



NATIONAL COMMITTEE TO SAVE OUR SCHOOLS OF HEALTH
1730 Rhode Island Avenue, N.W. • Suite 500 • Washington, D. C. 20036 • (202) 659-4376
SCHOOLS OF MEDICINE • OSTEOPATHY • DENTISTRY • OPTOMETRY • PODIATRY • NURSING
VETERINARY MEDICINE • PHARMACY • PUBLIC HEALTH AND ALLIED HEALTH PROFESSIONS

STATEMENT OF GEORGE JAMES, M.D., PRESIDENT, MOUNT SINAI MEDICAL
CENTER, AND DEAN OF MOUNT SINAI MEDICAL SCHOOL

SENATOR COTTON. Also, for the record, is a statement of Dr. George
James, concerning health manpower and medical education.
(The statement follows:)

Mr. Chairman and members of the subcommittee, I am George James, President of the Mount Sinai Medical Center of New York City and Dean of the Mount Sinai Medical School. I appreciate this opportunity to present testimony on the very important subject of health manpower and medical education.

The health manpower crisis in the U.S. has been amply documented many times in the past, so I will not go into this in any great detail. I would point out, however, that the crisis is becoming worse, not better. According to the U. S. Public Health Service, the 1970 total shortage of physicians, dentists, nurses, and allied health manpower of some half-million will increase by 1980 to almost three-quarters of a million.

As pointed out recently by the Carnegie Commission on Higher Education, this is our only major manpower shortage. We have managed to produce enough engineers, teachers, policemen, administrators, etc., but the production of health manpower has not kept pace with our needs.

The shortage of health workers, of course, is only a part of the health manpower crisis. We also have a maldistribution problem and a financial breakdown in our health education institutions.

The distribution problem is clearly illustrated by a state-by-state breakdown. The problem is less acute in my state than in most other areas. According to 1968 figures of the Public Health Service, there were 226 physicians per 100,000 population in New York. In other states, however, the problem is much worse: only 82 physicians per 100,000 population in South Carolina, for instance, and only 86 per 100,000 in Arkansas, and only 74 per 100,000 in Alaska.

The distribution problem is even more acute within states and within cities. Poverty areas, both rural and urban, suffer the greatest shortages. President Nixon was quite correct in pointing out, in his recent health message, that over 130 U.S. counties have no private doctors at all, and that in some areas of New York City there was only one physician for every 12,000 people. As a former

Health Commissioner of New York City, I can testify that this particular situation is bad and getting much worse.

Mr. Chairman, it is the financial crisis in medical education to which I am now closest and which I would like to discuss in some detail.

When the Health Manpower Act of 1968 was passed, we in medical education were told by the Federal government that physicians were a national resource and that the government would assist us to increase our output of that resource. We were even required to increase our enrollments each year in order to qualify for institutional assistance. The authorization levels contained in the 1968 legislation appeared adequate to begin this stepped-up production. Unfortunately, however, these implied promises have not been kept. Appropriations have not kept pace with the authorization figures. For Fiscal Year 1971, for example, \$168 million was authorized for institutional aid to schools of the health professions, but only \$124.3 million was appropriated. The authorization/appropriation discrepancy for the health professions construction grant program was much greater. \$225 million was authorized for Fiscal Year 1971, but only \$133.1 million was appropriated. Only \$25 million was appropriated for student loans, despite an authorization of \$35 million for this purpose.

In the meantime, partly as a result of these broken promises, partly as a result of inflation, and partly as a result of the decrease in Federal research funds, most medical schools are on the brink of financial disaster. Last year over half the medical schools in the country received emergency Federal grants on the basis of financial distress. Obviously, when the limited emergency funds are spread over such a large number of schools, the net effect on each school is minimal. Several schools have announced that they will be forced to close down unless increased Federal help is forthcoming. Two dental schools and over 160 nursing schools (mostly diploma schools) have closed in recent years. Private schools have been especially hard hit, with several

state legislatures now attempting to "rescue" some of these schools.

The decrease in recent years of Federal research funds has been a major factor contributing to the plight of the medical schools. Research grants have overhead costs built into them which are used, and rightfully so, for overall support of the institution performing the research. For example, approximately one-half the faculty members of medical schools are at least partially supported by research grants, and approximately one-sixth of the faculty members have their entire salaries paid by these grants. Thus, when grant support to a medical school is reduced or withdrawn, salary costs and other operational expenses tend to rise.

If the relationship between research grants and medical school finances is to be completely understood, the inflation factor must also be considered. As is the case in almost all areas of the health field, medical research is subject to even higher rates of inflation than the general U.S. cost-of-living increases: 6%-10% per year would be considered a conservative estimate, I believe. Therefore, even if research funds are maintained at a constant monetary level from year to year, the institution and the research effort suffer, since the real value of these funds is decreasing.

Mr. Chairman, I do not mean to state or imply that the Federal government should make or increase research grants to medical schools for the purpose of financially assisting those institutions. Research grants should be made on their own merits: to expand the frontiers of knowledge in the biomedical field for the purpose of improving the health and well-being of mankind. What I am saying is that Federal aid to medical schools must be looked at in its entire context in order to comprehend the current plight of these schools.

I would like to comment briefly on several aspects of the HEW health budget for Fiscal Year 1972.

Funding for the research institutes of the National Institutes of Health has remained at about the same level for the past four years. \$1.022 billion was

appropriated for Fiscal Year 1967, and just \$1.166 billion was appropriated last year for Fiscal Year 1971. This amounts to an average increase of just \$36 million, or 3.5% per year over the past four years. Given any reasonable estimate of the rate of inflation in the biomedical research area, the recent history of NIH funding can only be seen as a sharp cut-back in research effort.

For FY '72, the Administration is requesting an appropriation of \$1.292 billion for NIH research. This represents a commendable increase of \$126 million over last year's appropriation. Unfortunately, the bulk of this increase is proposed for just one disease category: cancer. While I agree with those who say it is time we made a more concerted effort in attacking cancer, I would point out to the Committee that, aside from the \$100 million "special cancer research initiative", the Administration is proposing a mere \$26 million increase in research funding for all other disease categories. This is an increase of less than 3% -- a continuation of the downward trend in real support for medical research.

I agree with the Association of American Medical Colleges and the Coalition for Health Funding that the NIH research appropriation for FY '72 should be on the order of \$1.5 billion. This amount would maintain the 1969 level of real research support and provide for the special program development proposed by President Nixon.

Permit me now to move from health research to the related issue of health manpower.

Construction. The first manpower item I would like to mention is the program of construction assistance to schools of the health professions. Grants are authorized for the construction of new facilities and the rehabilitation of existing facilities. The idea behind this program is to encourage the establishment of new medical schools and to encourage existing schools to expand their capacities to train doctors.

For every qualified medical school applicant who is accepted, two are turned away for lack of the schools' capacity to train them. In the 1968 legislation, Congress sought to remedy this situation by authorizing substantial appropriations

for construction projects over the following three years. Unfortunately, the amounts authorized have not been appropriated.

For Fiscal Year 1972, the Administration is requesting an appropriation of only \$98 million for construction of schools of medicine, dentistry, etc., and no money at all for construction of schools of nursing or allied health. This is \$35 million less than appropriated last year. This would be understandable if the need for more construction funds was not evident. But this is simply not the case. Applications for construction grants totaling over one billion dollars have been received by the Department of Health, Education, and Welfare and have been approved for funding subject to the availability of money.

I recommend that a minimum of \$300 million be appropriated for these construction grant programs, to at least begin to reduce the enormous backlog of much-needed projects.

Institutional Assistance. Mr. Chairman, the Administration is to be commended for proposing a substantially increased appropriation for institutional aid to schools of the health professions. A total of \$260.4 million is being requested for this purpose.

As you know, the basic authorizing legislation for the programs of assistance to health professions schools is being renewed this year, including the authorization for institutional aid. I urge you to fully fund the authorization which is finally approved, even if it goes beyond the Administration's request. It is hard to imagine an appropriation too large for the task covered by this particular line-item, namely to improve the quality of health professions education and to rescue those health professions schools currently in dire financial straits.

Student Assistance. Finally, I would like to touch on the matter of financial aid for students of the health professions.

A student desiring to enter one of the health professions, such as medicine or dentistry, faces a long, hard, and financially taxing struggle. Often his

family's financial resources have been depleted during his undergraduate years. He has little time available for part-time employment. If he was the object of a minority group recruitment program, he typically has almost no money of his own to begin with. Despite these financial burdens, health professions students have made clear their willingness to borrow funds, repayable with interest, in order to complete their professional training.

Mr. Chairman, despite the acceptance of the direct loan mechanism and the acceptance of the existing program of direct Federal loans, the Administration is proposing legislation to "phase out" this program in favor of lumping the health professions students (and nursing students) in with all other college students in the guaranteed loan program administered by the Office of Education. As a first step of this phase-out, the Administration is requesting a decreased appropriation for the direct student loan program. Only \$18.75 million is requested for health professions student loans in FY '72, compared to an appropriation of \$25 million for the current fiscal year. I believe that this new policy is unwise and unworkable, and that the authorizing committees will not recommend its enactment into law. In any event, Mr. Chairman, I would urge you to increase rather than decrease the appropriation for direct loans to students of the health professions. The need is so great in this area that an appropriation on the order of \$50 million seems called for, plus a substantial increase for nursing student loans.

Mr. Chairman and members of the subcommittee, the Mount Sinai Medical Center and the Mount Sinai School of Medicine are anxious to continue cooperating with the Federal Government to meet the serious health challenges facing our nation. By the conduct of biomedical research and by the production of health personnel who can deliver to patients the fruits of that research, we stand ready to serve. What is needed are more funds and, if necessary to secure these funds, a re-ordering of national priorities. That task is yours, gentlemen, and I hope my remarks today will be of some assistance to you in your efforts.

SUBCOMMITTEE RECESS

Senator COTTON. We will resume the hearing at 2:30 p.m., in S. 126 over in the Capitol, so that we are more handy to the floor when the bells ring.

We stand in recess until then.

Thank you.

(Whereupon, at 12:55 p.m., the subcommittee was recessed, to reconvene at 2:30 p.m.)

(AFTERNOON SESSION, 2:30 O'CLOCK, THURSDAY, JULY 15, 1971)

DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE

NONDEPARTMENTAL WITNESSES

STATEMENT OF DR. GREGORY A. MILLER, COORDINATOR, REHABILITATION COUNSELING, MICHIGAN STATE UNIVERSITY, AND PAST PRESIDENT OF THE AMERICAN REHABILITATION COUNSELING ASSOCIATION

VOCATIONAL REHABILITATION COUNSELING TRAINING PROGRAMS

Senator MAGNUSON. The subcommittee will come to order. Some of the other members will be here shortly.

Dr. Miller, we will be glad to hear from you as our first witness this afternoon.

Dr. MILLER. Thank you very much, Mr. Chairman.

Mr. Chairman and members of the subcommittee, my name is Gregory A. Miller and I am here to testify as the Immediate Past-President of the American Rehabilitation Counseling Association, an association of 1,800 members and are primarily concerned with the rehabilitation of the Nation's handicapped.

This organization is a division of the American Personnel and Guidance Association, whose 26,000 members represent all fields of guidance and counseling in our Nation.

I am also a professor at Michigan State University with the major responsibility for training graduate students to counsel, rehabilitate, and place in employment our country's handicapped.

My remarks are based on approximately 30 years' work as a psychologist and educator. I have been a professor at Michigan State University for the past 16 years, and prior to that, a rehabilitation psychologist in the State hospitals, prisons, and children's clinics of Michigan.

The American Rehabilitation Counseling Association (ARCA) appreciates the opportunity to present this position paper.

Across the Nation rehabilitation professionals are voicing a growing concern over the damaging reduction to the vocational rehabilitation training appropriations from the current \$27,700,000 to \$14,650,000, a 48-percent reduction in the President's 1972 budget.

Vocational rehabilitation professionals are dismayed by this action, for at this critical time it is imperative not only to maintain but to expend training programs in vocational rehabilitation counseling especially when more and more is being expected of rehabilitation agencies, public and voluntary, in rehabilitating physically and mentally handicapped individuals and those prevented from gainful employment by poverty or the barriers of cultural deprivation.

A study requested by the House Subcommittee on Higher Education and jointly released as Bulletin No. 1676 of the U.S. Department of Labor, Bureau of Labor Statistics, entitled "College Educated Workers, 1968-80: A Study of Supply and Demand," documents this need:

From 1968 to 1980, employment requirements for rehabilitation counselors are expected to increase almost 75 percent from 12,000 to 21,000.

This 4.7 percent annual rate of growth is only a quarter of the 19.7 percent annual growth rate that occurred from 1961 to 1968.

In recent years the rapid increase in employment growth was stimulated by legislation which expanded and improved rehabilitation services and facilities.

Factors contributing to the expected very rapid increase in requirements for rehabilitation counselors are population growth and the increased numbers of handicapped persons; extensions of services to the severely disabled; increasing support for social welfare; and the growing awareness that expenditures for rehabilitation often are returned as savings on the appropriations for custodial care of health and social welfare programs."

In a report entitled "Human Resources Development" and published in 1967, it is further noted that:

The flood of human resources development programs in recent years has consistently called for counseling and guidance as an integral part of the programs. Yet the shortage of professional counselors goes on, with only token effort to increase the supply of counselors to meet these new demands (p. 7).

A study done for the Social and Rehabilitation Services by the State of Rhode Island Division of Vocational Rehabilitation entitled "Preventive Rehabilitation" and published in 1968 states:

The one inescapable conclusion is that no matter how good the program—regardless of the funds or resources available, or the services that can be provided, the project will work only to the extent that the vocational rehabilitation counselor is competent (p. 37).

Mangum and Glenn (1967) conclude that vocational rehabilitation counseling has made a vital contribution to the success of vocational rehabilitation and the restoration of individuals to gainful employment.

In their policy paper entitled "Vocational Rehabilitation and the Federal Manpower Policy," part of a larger study financed by a grant from the Ford Foundation evaluating Federal manpower programs and policies, the authors note:

Most manpower and antipoverty programs to date have simply assumed that if money is available to be spent, personnel will be found with the ability to spend it and deliver the intended services. This has not proven true and programs suffer from a shortage of competent staffing. The vocational rehabilitation program has, in part, through its training grants and fellowships, produced the most competent front-line manpower of any related programs (p. 56).

Vocational rehabilitation counseling services first began with programs established through the passage of the Vocational Rehabilitation Act for Civilians in 1920. Legislation during the 1930's and passage of the Vocational Rehabilitation Act, Public Law 113 in 1943, further expanded rehabilitation services.

On August 3, 1954, President Eisenhower signed Public Law 83-565 signaling a new era in the vocational rehabilitation of handicapped men and women.

Grants to support the training of professional personnel for rehabilitation services were in the provisions of the law and provided broad authority for the training of the needed professional rehabilitation counselors to implement service programs.

The 1965 vocational rehabilitation amendments expanded the range of rehabilitation services and the legal and financial base, further intensifying the need and broadening the authority for the graduate training of rehabilitation counselors.

The value of rehabilitation services to the Nation has been demonstrated over the past half century.

In the more than 50 years of Federal-State vocational rehabilitation services, nearly 3 million people with a wide variety of disabilities have been placed in or returned to productive employment.

The payment of income taxes by individuals who have been returned to employment through rehabilitation has made rehabilitation largely self-supporting, as well as restoring the personal dignity of citizens who would otherwise be forced onto welfare rolls.

In 1970, over a quarter of a million people were successfully rehabilitated. It should be underscored that rehabilitation is oriented toward promoting employability and economic independence, rather than fostering dependency.

Hence, the administration's new direction for a work orientation for public assistance clients will place even greater demands on the limited available supply of rehabilitation counselors.

The disabled from Vietnam present new needs and new demands on the services of vocational rehabilitation counselors.

Their special needs must be served and the Nation owes these men the highest level of skill possible in serving these special needs.

Given the limited supply of rehabilitation counselors and the expanding demand for their services, it is essential that counselors be adequately trained.

Untrained counselors are inefficient, wasting time and resources, driving away clients by their lack of skill, and thus costing the Government more for each successful case closing.

Master's level trained counselors are needed as team leaders for sub-professionals in rehabilitation and manpower programs.

The clients now in need of services present even more complex problems. Disability in many clients is complicated by poverty and by cultural differences. Thus, adequately trained counselors are all the more needed at this time.

Over 5,000 students have been trained in vocational rehabilitation counseling under RSA sponsorship. These professional counselors provide a solid core of frontline professionals for public and voluntary rehabilitation agencies. However, a desperate shortage of trained rehabilitation counselors still exists. Our profession maintains a primary commitment for the training of professional rehabilitation counselors to meet the manpower needs of all public and voluntary rehabilitation agencies.

Seventy training programs in vocational rehabilitation counseling throughout the Nation in both public and private colleges and universities will be adversely affected by the budget reductions.

And over 2,000 students currently enrolled in full-time graduate training in rehabilitation counseling will be adversely affected.

No funding will be possible for any new rehabilitation counseling students for the next academic year. Thus, by reducing funds at this time, a 15-year investment by both the Government and the colleges

and universities in developing competent frontline manpower for vocational rehabilitation will be seriously impaired.

Our graduate programs in vocational rehabilitation counseling provide a practical sequence of training that will prepare professional rehabilitation counselors to function as behavioral change specialists.

Our four semester sequence of training inculcates in our students the skills that are essential to the establishment of a professional counseling relationship and those required in maintaining and monitoring the complex array of rehabilitation services that are required to help the handicapped individual achieve a productive and useful life.

Thus, the product of our training—the professionally trained rehabilitation counselor—must demonstrate competency in a diversity of areas.

These include:

- (1) Rehabilitation philosophy, history and structure;
- (2) medical aspects of disability;
- (3) psychosocial aspects of handicapping conditions;
- (4) occupational information and the world of work;
- (5) counseling theory and techniques;
- (6) community organization and resources;
- (7) supervised practice in rehabilitation counseling;
- (8) the psychology of personal adjustment;
- (9) appraisal of the individual, assets, and liabilities, and
- (10) statistics and research methods necessary to utilize research findings and professional publications.

The majority of graduates of RSA sponsored master's degree programs go into rehabilitation counseling or related work for Government and private rehabilitation agencies.

In fiscal year 1970 (Employment Status, September 1969), three out of four graduates were employed in the field of rehabilitation with more than one-third of them in State vocational rehabilitation agencies.

Without funding of students, the field of rehabilitation counseling will not be able to compete for students, as the field is relatively new and lacks the visibility of older professions; also, the economic rewards are lower than in medicine, law, or business.

Hence, to continue to attract high caliber students, funding must be maintained.

It seems incredible that funds should be reduced instead of increased for programs preparing qualified professionals both competent and committed as helpers of the handicapped.

Vocational rehabilitation of handicapped persons is essential to the stabilization of our economy and the advancement of our society.

The least that should be done, in view of the dire need for additional rehabilitation counselors to assist growing numbers of persons disabled through military as well as nonmilitary activities, is to restore all training funds to the 1971 level.

Mr. Chairman, on behalf of the American Rehabilitation Counseling Association and Michigan State University, I wish to thank you for this opportunity to present our views on this crucial topic regarding appropriations for vocational rehabilitation counselor education.

Senator MAGNUSON. Dr. Miller, we thank you for your statement.

Now, these trainees, these people that take up this course, the Federal Government pays all the costs?

Dr. MILLER. The Federal Government for those who qualify, it would be 100 percent of the students in counseling, would be paid, but the majority has been, the Government pays tuition and \$200 a month stipend.

Senator MAGNUSON. The university does not furnish anything?

Dr. MILLER. No.

Senator MAGNUSON. Moneywise?

Dr. MILLER. No.

Senator MAGNUSON. They must furnish space and facilities?

Dr. MILLER. Yes.

Senator MAGNUSON. Now, for the record, the total for the social and rehabilitation services last year was \$10,531,499,000, and this year, even the budget suggests \$12,455,160,000, \$2 billion more.

Dr. MILLER. This is everything.

Senator MAGNUSON. This is all involved.

Dr. MILLER. I am talking to a subdivision, because the SRS is a tremendous broad program.

Senator MAGNUSON. No one understands that better than we do. It is \$12 billion broad. That is what it is.

Now, the point you are making is that out of the \$12½ billion, it seems a little odd that they would cut by approximately 50 percent the training of counselors and other people involved in the delivery of services.

Dr. MILLER. Those that do the work.

Senator MAGNUSON. They do not do all of the work, but at least the people are more highly trained than some people that work in the social rehabilitation service programs.

Dr. MILLER. While at the same time, Senator, in the increase, part of that increase is to make eligible more people for services, and then cut down on the people that can provide them does not sound like they are going to match up, especially when you are including a population that is as difficult to work with, compared to say the crippled or retarded.

Senator MAGNUSON. Do you have the figure, and if not, we can get it from the Agency, of how many people were trained with the \$27.7 million last year, and can you compare that with how many would be trained with the 50 percent cut?

We are talking peoplewise.

Dr. MILLER. It would cut it right in half.

Senator MAGNUSON. I understand that.

How many people were trained with the \$27 million?

Dr. MILLER. Well, now, that is very difficult for me to answer.

Senator MAGNUSON. Well, we will find out from the agency.

Dr. MILLER. I am addressing myself to the entire rehabilitation services.

Senator MAGNUSON. We have it here. There were 6,500 in traineeships last year.

Dr. MILLER. Of which about 2,000 were counselors, the other 4,000 are PT, nurses, physicians.

Senator MAGNUSON. Can you explain what PT is?

Dr. MILLER. Physical therapists, nurses, speech and hearing social workers.

Senator MAGNUSON. They estimate even under the cut that they would still be able to train 5,500, and they cut it by 1,000.

Dr. MILLER. They are telling us, here is the one university at one place, they go ahead and say to continue your students that were there last year, to finish their master's, but do not commit anything for new students.

Senator MAGNUSON. By masters, you mean 2 years after graduation?

Dr. MILLER. It is a 2-year program. They said to go ahead, let your students that were there last year finish next year, but do not take any new ones until we let you know. They have not let us know, and it is almost August, and school starts in September.

Senator MAGNUSON. The schools furnish nothing but the place?

Dr. MILLER. Yes.

Senator MAGNUSON. Who pays the teachers?

Dr. MILLER. The majority of the teachers, they——

Senator MAGNUSON. They are from the school?

Dr. MILLER. Yes; that is correct.

Senator MAGNUSON. And the school pays you, and you do not take part in any of this?

Dr. MILLER. I did originally, but eventually the university took over my salary. There are a few professors that are on completely Federal money, but most of them have been taken over by their States.

Senator MAGNUSON. What general percentage goes into this work, how many do you lose afterwards?

Dr. MILLER. About a third.

Senator MAGNUSON. About two-thirds go into the field?

Dr. MILLER. Into the field; and of that two-thirds, about a third go into the State, which of course is our State-Federal vocational rehabilitation program, which I think is a good payoff.

Senator MAGNUSON. Thank you very much.

Dr. MILLER. Thank you very much, Mr. Chairman.

STATEMENT OF THE INTERNATIONAL ASSOCIATION OF REHABILITATION FACILITIES

Senator MAGNUSON. While we are in the area of rehabilitation, I have a statement from the International Association of Rehabilitation Facilities which will be included in the record.

(The statement follows:)

Mr. Chairman: The International Association of Rehabilitation Facilities, representing some 650 facilities in the United States, is organized and operated for the purpose of giving leadership to these facilities in their provision of rehabilitation services for our disabled citizenry. IARF expresses support of the State-Federal Vocational Rehabilitation Program and the contribution it is making to the well-being of disabled individuals and to society. This association is especially acquainted with, and impressed by, the contribution this program is making through the use of rehabilitation facilities.

As you consider the important matter of appropriating the monies available to the Congress, we feel that you will give an extremely high priority to this important facet of governmental service. The member facilities of the organization have, because of their faith in the Congress and the commitments of the State-Federal Rehabilitation Program, marshalled the resources of the various communities across the nation to supplement and augment governmental efforts. Program data from the Rehabilitation Services Administration indicates that \$77 million of Section 2 appropriations were expended in rehabilitation facilities in 1970, up from \$55 million in 1968. This support of community facilities by the State-Federal Rehabilitation Program, using Section 2 funds, is often the means which make them the important community agencies they are. In the past few years this has enabled them to employ competent staff and upgrade services. The indications have been that the State and Federal governments would continue to support the rehabilitation of the seriously disabled of this nation, the people who can only reach their maximum potential through the use of rehabilitation facilities.

Basic Grants to States

Believing this, these facilities have placed themselves in an excellent position to provide the finest rehabilitation services. This is now threatened by the recommendation of an inadequate appropriation to Section 2 of the Vocational Rehabilitation Act. Without a minimum appropriation of \$575 million and an allotment base of \$600 million, much of the momentum to salvage these citizens will be lost. To move from the Administration recommendation of \$518 million to \$575 million will not only provide an additional 57 million Federal dollars, but will also make available many millions of State and community dollars which will not be usable with the appropriation of \$518 million. The rehabilitation facilities simply will not receive enough support from the State-Federal program if it is financed at the \$518 million level to maintain the momentum that has been built up over the past few years. Some of their resources will indeed actually be lost. The \$518 million represents only a 3% increase, about half what would be required just to keep up with the rate of increased rehabilitation costs. The additional appropriations to \$575 million should make it possible for 30,000 more disabled persons to be rehabilitated--most of whom are now dependent on their families or on welfare support.

Training

We are likewise concerned deeply with the recommended decrease in the appropriations for Research and Training in Sections 4 and 7 of the Act. At a time when many young professionals have dedicated themselves to rehabilitation programs, especially to rehabilitation facilities, we can ill afford to reduce the funds which will insure their continued professional development and, therefore, quality services to our disabled citizens. We invite your attention to the fact that rehabilitation is a relatively new movement and that the professional development in this area has not had

the long history that we have in such professions as medicine and dentistry.

However, the trust has been established and must be maintained.

The Administration has recommended a budget reduction in training of over \$13 million, or more than a 48% cut from the present level of \$27.7 million--and this current level is already \$4 million less than the previous appropriation. No clear suggestions or guidelines have been furnished by the Administration as to how these cuts would be applied. It appears to be an attempt to save budget dollars without regard to the consequences. We recommend full restoration of these funds.

The reduction of training funds at this time would be especially traumatic and destructive to professional development in rehabilitation. To maintain the current level of appropriation, \$27.7 million, is what this association would consider to be an austerity move and an absolute minimum amount to prevent the destruction of a very valuable facet of the national rehabilitation movement. We strongly support the recent action of the House Subcommittee in recommending \$33 million for Training.

Research and Demonstration

Operating under a modest Research and Demonstration budget of \$31.6 million (current level) the Social and Rehabilitation Service has funded the development of significant improvements in the delivery system of vocational rehabilitation. No reasonable explanation is given for the budget cut of \$6.7 million in this area. Its effect would be to lose many of the valuable research people in rehabilitation who would move on to other fields, and challenge the credibility of the government's concern for improving methods and techniques. We recommend full restoration of these funds.

Facility Construction - Section 12

The fact that there are many outstanding rehabilitation facilities providing exceptional services notwithstanding, there are not now available enough of these facilities to provide services to the seriously impaired, and of those available, many of the physical plants are submarginal. The momentum which we spoke of earlier has moved many community organizations in the direction of constructing adequate physical facilities. This momentum has been developed with an expectation that Federal assistance for financing construction would continue to be available and would continue to increase in amounts until such time as adequate facilities are constructed. The elimination of all construction funds from the Rehabilitation Act would seriously impede the momentum developed and would discourage many facilities in their planning efforts.

Section 12 of the Vocational Rehabilitation Act was established by the Congress to support a nationwide program of facility development and construction. Yet only \$4.1 million is currently appropriated, and this for two or three major facilities. Now the Administration proposes to eliminate all construction under Section 12 and appropriate only \$550,000 for staffing a few of those facilities already established. The States have documented a need for 75 to 100 major comprehensive facilities across the country, plus a number of smaller ones, to meet particular local needs. At least \$20 million are needed to begin this effort in fiscal 1972, and we urge an appropriation in this amount.

Developmental Disabilities

The 1970 Developmental Disabilities Services and Construction Act was intended to extend and expand services previously limited to the mentally retarded. This Act now applies to other groups such as those disabled by cerebral palsy, epilepsy, and other

neurological impairments associated with childhood diseases. In spite of strong congressional and public support for this legislation, the Administration proposes to curtail the efforts of such programs by recommending no more funds than were available under previous legislation for the retarded alone. Such a move will result in a tragic and unnecessary battle for these limited dollars among those concerned for the various disability groups, and these will be insufficient funds for any significant rehabilitation services to these severely disabled young people. IARF recommends a formula grant program of \$40 million as a reasonable amount to begin a serious effort to implement the intent of this legislation.

In summary, IARF recommends the following budget appropriations for rehabilitation:

1.	Basic Grants to States	\$575 million
2.	Training	\$ 33 million
3.	Research and Demonstration	\$31.6 million
4.	Facility Construction (Sec. 12)	\$20 million
5.	Developmental Disabilities	\$40 million

Any less support will curtail the present level of rehabilitation services across the country and inhibit or even stall the momentum now under way.

STATEMENT OF MRS. JULIA BASSETT, REPRESENTING THE SEATTLE MODEL CITIES PROGRAM

MODEL CITIES HEALTH PROGRAMS

Senator MAGNUSON. We will hear from Julia Bassett of the Seattle Model Cities program.

Mrs. BASSETT. Thank you very much, Mr. Chairman.

I would like to thank you first, Senator Magnuson, for bringing Senator Hollings to Seattle to join the people, and I appreciate the effort, and the people of Seattle appreciate it.

My name is Julia Bassett, and I am cochairman of the Seattle Model City Program Health Task Force.

I also serve on the Seattle Model City Program Advisory Council and I am vice president of the Community Health Board of Seattle.

The community health board is the recently established administrative body consisting both of consumers and health professionals with the responsibility of coordinating and administering model city health programs.

I have lived in Seattle for the past 27 years and I am employed by the Seattle Mental Health Institute, a community mental health center whose catchment area encompasses approximately one-half of the Seattle model neighborhood.

I am here to appear for increased funds for model cities health programs (partnership for health project grants).

I was pleased to learn that last year this committee appropriated as much as possible under the ceiling authorized for this section. Hopefully, this year when there is a higher authorization level, more can be appropriated.

I am not an expert in health budgets, nor am I familiar with model city programs nationally, but I can tell you about the programs in my own community.

I hope that you will agree with me that Seattle's health programs are worthwhile and should be continued, and that other communities in the United States should receive the same benefits.

DESCRIPTION OF SEATTLE MODEL CITIES HEALTH PROJECTS

Historically, the development of adequate, acceptable and accessible health programs to serve the model city area has been difficult to come by.

The first months of planning brought forth many "do-good" health providers who had hopes of getting a slice of the Federal pie. The citizens saw an opportunity to ventilate displeasure with existing health services.

There have been many frustrations in getting people together to plan long-term projects, convincing poor people to defer immediate needs and work hand in hand with medical professionals to provide comprehensive health care for an entire community, and encouraging health providers to assist us in solving community health problems.

The planning process at times seemed endless, but at last we have operating programs and we are proud.

The Odessa Brown Children's Clinic serves the medical and dental needs of children within our community. Its operation represents a successful marriage between the Seattle model city program and Children's Orthopedic Hospital.

Thanks to funds provided by this committee last year we now have an exciting project aimed at preventing dental disease in young children.

The environmental health project is administered by the Seattle-King County Health Department and works to eliminate rat and rodent infestation and removes hazardous rubbish such as abandoned automobiles, old refrigerators, and garbage from vacant lots, alleys, storage rooms, backyards, and basements.

In addition, the employees of this project provide a community education function to prevent unhealthy environmental conditions from reoccurring.

The prepaid health insurance project is currently operating under the direction of the Community Health Board of Seattle, making free choice of physicians and medical services available to a sample selection of low-income model neighborhood residents who have no means of getting health care.

I might add as an insert here, Mr. Chairman, this program is being used as a model to see how the national health insurance program might work, so far as doing research, and I am all for service-oriented research projects.

In cooperation with the University of Washington and the Seattle model city program, dealing with emotional and social problems existing within the community, a community mental health center became a reality last January.

Just becoming visible is a health station in our Pioneer Square district, which will deal with the unique problems of skidroad residents, including alcoholism.

All of these programs have outreach components to assist residents in adequately meeting their health needs. The employees consist of a high percentage of model neighborhood residents who are encouraging their neighbors to take pride in their community and build rather than burn.

We are in our third planning year. Enormous challenges remain to be tackled. The areas of nutrition, narcotic addiction, areawide health education, and numerous additional health deficiencies prevalent in our community still need attention.

CITIZEN PARTICIPATION

The value of the model city program is in offering the opportunity for poor people who have always been deprived of the basic need of health to become responsible citizens in planning, monitoring, and evaluating health programs, thereby permitting the underprivileged to determine their own fate.

At this time, community participation and citizen involvement is the way an idealized democratic society becomes real to me and to other members of my community.

To kill a successful demonstration program by decreased or withdrawn funding would be a step toward total alienation of a poor community.

Citizen participation would continue in quite a different form. Dialog would become demands rather than negotiations. Another factor to consider is the high rate of unemployment currently in Seattle, which is much higher in the model neighborhood. We cannot afford to lose more jobs.

Because of our planning efforts we are successfully working together, providing financially feasible health programs.

I hope that you will look with favor at the inroads we have made through these efforts and one day look back with pride on a great community service you have helped to create.

COMMUNITY MENTAL HEALTH CENTERS

While I have your ear, I would like to encourage you to also consider maximum funding for community mental health centers across the Nation.

In addition to helping communities absorb the responsibility of their psychiatric problems, the community mental health center is engaged in many preventive services with adults and children, thereby promoting emotional stability.

At the Seattle Mental Health Institute, where I work, we are engaged in dealing with such basic problems as hunger, housing, and employment.

We have found that traditional middle-class psychiatry is not always appropriate to assist the mental health needs of our low-income clientele.

Congress should be proud of the accomplishments of the community mental health centers.

It is frustrating for those of us in the trenches to know that we have the capacity to do so much more.

Thank you so much for listening.

Senator MAGNUSON. Thank you, Julia, for that very fine description of what can be done in a community, particularly in a model city area, by pulling people together, and, of course, the appropriations that you are talking about run through several items in the bill.

When you talk about the partnership for health, the budget in all fairness is up considerably from last year, and for the purpose of the record, it was \$220 million in 1971 to \$258 million for 1972. They also have upped a little planning money, which is so essential, and then for the community mental health centers, of course, the committee has heard a great deal of testimony on that, and what bothers us is what bothers you, too, the problem of staffing.

Mrs. BASSETT. Yes.

Senator MAGNUSON. You just always are understaffed, are you not?

Mrs. BASSETT. Yes; we are.

Senator MAGNUSON. And we can have agreement on all of the objectives we want, but if we do not get the staffs in these community health centers all over the United States, get better staffing, why there is not going to be the results possible, and they are just beginning to show the results, we are at a peak of showing more results.

Now, it was \$90 million last year for staffing, and the budget recommended \$105 million, and the committee has been talking about a little bit more.

I cannot speak for the whole committee, but this is a number one priority, community health centers, not only to get them established, but it is to staff them. There just does not seem to be any awareness sometimes that this is what is needed, so we appreciate that part of your testimony regarding community mental health centers.

Now, I notice one little item here that we are deeply interested in:

The environmental health project is administered by the cities and counties?

Mrs. BASSETT. The Seattle-King County merged to administer our health department. It was previously just the Seattle Health Department, and they have a contract.

Senator MAGNUSON. Within the model cities?

Mrs. BASSETT. Yes; specifically for the model neighborhood, which you probably know is a much more rundown area.

Senator MAGNUSON. One of the things they do, other than to remove rubbish and old refrigerators, and all of the things that accumulate in these areas, and this is done by young people.

Until we passed a bill out of our Commerce Committee, what was it, 4 or 5 years ago, it was amazing how many youngsters were killed in these old abandoned refrigerators in alleys. The doors would get closed, and every day you would read about the needless death of children, but you say this program works to eliminate rat and rodent infections.

Just what do you do?

This is a very important thing to the Senator from Illinois, and to everybody else, and I must say that we did not have any money to begin with for it, and we have some trouble in the House, but the budget did come up just recently with a \$15 million budget amendment for the whole country.

Now, this requires local participation, such as in Cook County and in the city of Chicago, I suppose, but what do they do?

Mrs. BASSETT. The first thing they do is get involved in health education of the community, so that the community knows where to call when they see rats and rodents.

Senator MAGNUSON. They have a number to call where they can get results?

Mrs. BASSETT. That is correct.

Senator MAGNUSON. And you people that work down there keep spreading the news around?

Mrs. BASSETT. Yes. The people that work in the project, part of their function is community health education, and not only do they have items in the newspapers, and on the radio, but they go into classrooms in all of the model cities areas, in those neighborhoods, and they educate the children, sending literature home with them.

On other days, on rat patrol, that is what they call it, they get a call into the office, they go into the area, get out the ones they can see, and leave things there, so they do not come back, leave rat poison, so that the rodents do not return to the area.

Senator MAGNUSON. And they report where they found them?

Mrs. BASSETT. That is correct, to the health department.

Senator MAGNUSON. I do not know if we are catching up with this problem, but we are trying, but it seems to me \$15 million spread all over the country, particularly as there is a great deal of local and financial participation in this, they put in much more money than we do.

Now, I know a little bit about that dental business you have got going on down there, and how you work with the orthopedists, and I think I told you yesterday that the committee is about to pass on the bill I introduced on dental research and dental training, directed toward children.

Mrs. BASSETT. That is wonderful.

Senator MAGNUSON. The figures are just startling; 70 per cent of all low-income children have never been to a dentist.

Mrs. BASSETT. That is easy to believe.

Senator MAGNUSON. It is startling, and very few of them ever get there before they are 6 or 7, and this is when you have got to catch them, and we hope you will get that bill.

It will be mainly for training, to get the trained people that will go to rural areas, where they just do not have any place to go, and in the model cities, it is very important.

You have got cooperation from the orthopedists and others, and what about the local dental society, do they work with you?

Mrs. BASSETT. Yes, they have been working cooperatively with us.

Senator MAGNUSON. They spend a little time down there?

Mrs. BASSETT. Yes, they do, as well as the dental program for children, and there will be an adult dental program, and the programs operate under prepaid.

It is not in there yet, but the dentists in the local dental society are working along with us to plan to implement that program.

Senator MAGNUSON. I have no further questions. I certainly appreciate you bringing it to my attention, and particularly the committee's attention what you are doing there. Here is a case where it would be foolhardy to cripple it as far as the Federal contribution is concerned, when we are just on the verge of proving out a model for many cities.

Senator Cotton, do you have any questions?

Senator COTTON. I have no questions. It is an excellent statement.

Senator MAGNUSON. Senator Percy?

Senator PERCY. Thank you very much indeed. You are very helpful.

Senator MAGNUSON. Thank you very much.

STATEMENT OF DR. MORRIS ROCKSTEIN, OF THE UNIVERSITY OF MIAMI
SCHOOL OF MEDICINE

Senator MAGNUSON. A statement submitted by Dr. Morris Rockstein, of the University of Miami School of Medicine, will be placed in the record. Dr. Rockstein could not be here to testify on the date we scheduled him.

(The statement follows:)

INTRODUCTION

There are, in the United States today, over 20 million men and women (approximately one out of every ten persons) who have passed their 65th birthday. These 20 million people, although greatly varying in their religious, educational and economic backgrounds, nevertheless, represent a continuous progress over the past centuries of increasing the life expectancy at birth of each boy and girl infant. This is in marked contrast to the longevity of Americans at the turn of the century, namely 1900, when only three out of 76 million Americans (4% in contrast to 10% today) were 65 years of age or over. Another way of stating this is that a child born in 1900 would have a life expectancy of 48 years of age while a child born in the United States today can be expected to live, on the average, to 68 years of age for male infants and to 73 years of age for female infants.

Moreover 16,000 Americans are reaching the age of 65 each month at the present time, so that the percentage of Americans over 65 years of age continues to be an ever-increasing challenge in terms of health, as well as sociological, economical and even political implications, in the immediate future as well as for many years to come.

Finally, what is even more remarkable is that an additional 20% (42 million) men and women in America today fall into the 45-to-65 year old category and it is these individuals in particular for whom we may be able to anticipate, retard, or even present certain significant aspects of the aging process, so that not only a longer life but living longer better (the theme of the American Aging Association, incorporated last year and motivated towards this primary end of longer life and more productive and healthier old age) can be achieved.

THE AGING PROCESS

Most people think of aging in terms of a number of various obvious symptoms and signs. These include far-sightedness at the age of 45 to 50 in all human beings to the best of our knowledge, as well as gradual hearing loss, graying of the hair and wrinkling of the skin, a stooped appearance and an increasing failure of the locomotor as well as the nervous system, both in terms of movement and responsiveness, and during the very later years of old age an increasing tendency to mental senility, at least in a small part of the population.

It is obvious that there are also a number of "diseases of old age", but most of these are really not restricted to old people as such, although the incidence of hardening of the arteries and related heart and brain deterioration, as well as cancer, show an increasing incidence as one gets older and older.

As a basic medical scientist who has been interested in the aging process as a natural phenomenon found universally among all animals from the lowly insect to man himself, I have been personally involved both in research and the training of researchers in the field of biological gerontology, for well over 15 years. My ultimate aim, like that of the relatively few scientists all over the world interested in this unusual, but universally distributed biological phenomenon, is the understanding of the facts and underlying mechanisms of aging, so as to be able to recommend chemical and physical means of retarding or delaying the aging process, on the one hand, if not preventing entirely the aging of certain systems (like the brain muscle, the eye and the skin) in aging humans, so that they may live longer, but also live a better life, in all dimensions. This includes good health, vigor, and mental well being, so that the increasingly greater population of senior citizens represents an important segment of the American population of active, involved, healthier and happier people.

I myself am a director of a Training Program in Aging which is supported to a great extent by funds by the National Institute of Child Health and Human Development. I am one of the relatively few fortunate individuals to have had this Training Program renewed for the coming five years, to permit us to train two post-doctoral and eight graduate students per year, in the ways of our knowledge as well as theories of the aging process.

At the same time, I am carrying on a long-term, extensive research program of a relatively modest nature, as regards financial support, also supported in part by the National Institute of Child Health and Human Development. This study is concerned with the one of several important systems,

which shows an age-related degeneration in virtually all animals of the animal kingdom including man, namely locomotion or movement. My work, as modest and as limited as it is in the total picture of aging, nevertheless has come up with a number of important findings, which now must be explored at the molecular level, in order to determine:

- 1) Whether or not the hereditary basis for aging of muscle is the sole factor in the aging process, and
- 2) where in the complex chain of chemical events in muscle, both in its development and its aging, the weakest link occurs first and how we can prevent or delay the onset of degeneration of motor ability, particularly in terms of the important chemical system, the enzymes or catalysts of the cell, if not degenerative changes in the genetic material of the cell itself.

Both as Past-President of the Gerontological Society, the leading scholarly organization dedicated to understanding and exploring all aspects of the aging process, as well as a founding member of the American Aging Association and a member of its Board of Directors, I think I can speak to the question of the ever-increasing need for support not only of research, but of training of biochemists, physicists, and biologists, of course, for a career in the field of gerontology or biological aging, in order to attack every possible facet of the aging process by input on the part of the best available brain power, through training per se.

In making a plea for enhancement of the funding of research as well as research training, particularly through the National Institute of Child Health and Human Development (as well as such institutes as through the National Institute of General and Medical Sciences and the National Heart and Lung Institute) permit me to refer, respectfully, to House Report #91-1310, of 91st Congress-second session dated July 16, 1970 on page 27 and 28 of that report in which one is impressed with the fact that National Institute of Child Health and Human Development omitted any recommendation for increase in the funds for aging studies as part of the \$20,262,000 increase over the 1970 appropriations. This despite the fact that the Institute specifically states that one of its missions is "understanding the aging process" (See page 27, paragraph (5) of that report).

Moreover, referring to the August 4, 1970 Senate Hearing of the Sub-Committee on Appropriations of the 91st Congress-Second session on H.R. 18515, and the testimony by the Honorable Elliott R. Richardson, Secretary of Health, Education and Welfare (See page 1756 of the hearings on the aforementioned bill), Mr. Richardson recommended that 10.4 million dollars in the House allowances for training grants and fellowships be deleted. The arguments given by the Honorable Secretary for such deletion are, in my humble opinion, fractions, on two accounts vis.,

first, it is recommended on the basis of economy because of the unavailability of funds "to increase the number of researchers". The allusion to "a vicious cycle" resulting "if we continue to train researchers but not provide funds for the support of their researchs", appears to be reasonable on the surface, but, on the other hand, as the aging population increases in the number of health problems concomitant with such an increase in this population, commands, if not demands, an increase in research support for the study of the aging process.

Second, the Honorable Mr. Richardson also raises the question as to whether too many "medical school graduates" will be drawn to research for such studies, "when our first priority should be getting them into practice" is equally untenable an argument. Indeed, only in one case over the past five years of our own Training Program has a medical school student entered our Training Program, on an elective basis. Indeed, when and if the body of knowledge concerning the aging process of any one system is crystallized into a unified whole, at that time we would certainly anticipate and hope that comparable studies and research on aging in humans would be carried out and, of course, such procedures would necessarily have to be followed by a competent research with a medical degree.

As a citizen and resident of the State of Florida, which happens to be number one in the country in percentage of senior citizens (namely 14.5% of the residents of Florida are over 65 years of age in contrast to the national average of 10%), I nevertheless feel that I am presenting a viewpoint which is applicable to the entire country, insofar as our need for increased research as well as training of researchers to delve into the mysteries of the aging process in order to make our middle and later years healthier and happier ones, is concerned. In my opinion two giant steps forward should be taken by the Senate Sub-Committee on Labor, Health, Education, Welfare in this direction:

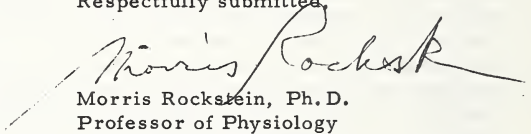
- 1) Effect legislation for the supplementary appropriation of funds for the fiscal year 1971, in the amount of a minimum of 5 million dollars for the National Institute of Child Health and Human Development, both for continuation of sound training programs as well as for increased support of research in the field of biological and clinical aging, earmarked with the stipulation that such funds be utilized specifically for such training in research, and therefore, be non-transferable for any other purposes.
- 2) Inclusion in the budget for fiscal year 1972 an increase, over funds included in the current 1971 fiscal year budget, by \$10 million funds (also non-transferable for any other purpose) for research and research training programs in biological and clinical gerontology.

-5-

I appreciate very much the privilege afforded to me by this Sub-Committee in allowing me to present my views on this subject which is dear to my heart and to which I have devoted a greater part of my professional life and hope to continue to do so over the next ten to fifteen years.

The retardation, if not prevention, of the aging process in one or more of its several complex facets and the amelioration of the physiological and medical problems of the aging process in our ever-increasingly sized population of senior citizens can result only if this Sub-Committee makes possible the carrying out of these recommendations which must be considered modest insofar as the total budget of the country in general as well as health problems in particular are concerned.

Respectfully submitted,

A handwritten signature in dark ink, reading "Morris Rockstein". The signature is fluid and cursive, with the first name "Morris" and last name "Rockstein" clearly distinguishable. A long, sweeping horizontal line extends from the end of the signature to the right.

Morris Rockstein, Ph.D.
Professor of Physiology
and Radiology

University of Miami School of Medicine
Miami, Florida

July 1, 1971

MR:mfm

STATEMENT OF DR. A. EDWARD MAUMENEE, RESEARCH TO PREVENT
BLINDNESS, INC.

Senator MAGNUSON. Also to be included in the record is a letter from James S. Adams, president of Research To Prevent Blindness, Inc., transmitting a statement in support of appropriations for the National Eye Institute by Dr. Edward Maumenee.

(The letter and statement follow :)



RESEARCH TO PREVENT BLINDNESS, Inc. ■ 598 Madison Avenue, New York, N.Y. 10022

PLaza 2-4333

OFFICERS AND TRUSTEES

JULES C. STEIN
Chairman
JAMES S. ADAMS
President
MRS. ALBERT D. LASKER
Vice President
LEW R. WASSERMAN
Vice President
WILLIAM C. CONNER
Treasurer
MRS. ANNA BING ARNOLD
MRS. WILLIAM M. GREVE
WILLARD W. KEITH
GRAHAM D. MATTISON
DAVID A. WERBLIN
MRS. HARRY C. WIESS
WM. J. VANDEN HEUVEL
Secretary and Counsel

SCIENTIFIC ADVISORY PANEL

EDWARD W. DEMPSEY, Ph.D.
SIONEY FARBER, M.D.
E. CUYLER HAMMOND, Sc.D.
H. K. HARTLINE, M.D.
RICHARD L. MASLAND, M.D.
A. EDWARD MAUMENEE, M.D.
WM. C. H. PRENTICE, Ph.D.
ALGERNON B. REESE, M.D.
EDWARD L. TATUM, Ph.D.
GEORGE WALO, Ph.D.

DAVID F. WEEKS
Executive Director

HAROLD F. SPALTER, M.D.
Secretary, Scientific Advisory Panel

ALBERT V. BURNS
Director of Public Information

July 15, 1971

Senator Warren Magnuson
Chairman,
Appropriations Subcommittee on Labor/HEW
Room 1108 New Senate Office Building
Washington, D. C. 20510

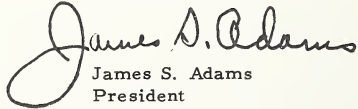
Dear Mr. Chairman,

I have been informed that you have begun hearings on the Labor/HEW appropriation for FY 1972 even though the House has not yet acted on the bill. I believe you are doing this in order to expedite the whole process of funding health programs this year.

We of Research to Prevent Blindness would like to cooperate in this effort. We are confident of your support of appropriations for the National Eye Institute. We would therefore like to submit the enclosed statement for the record, which was prepared by Dr. A. Edward Maumenee. We have been informed by our representative in Washington, Luke Quinn, that this is the best way to proceed.

We would like to take this opportunity to thank you for your continuing championship of the nation's health program, especially in the field of ophthalmology.

Sincerely yours,


James S. Adams
President

JSA:prg

CONQUER EYE DISEASE THROUGH RESEARCH

I am Dr. A. Edward Maumenee, Professor and Chairman of the Department of Ophthalmology at the Johns Hopkins University School of Medicine, and I am Director of the Wilmer Ophthalmological Institute which is the oldest such Institute of its kind in this country. I am presently the President of the American Academy of Ophthalmology and Otolaryngology and have served in a similar capacity with the major scientific and medical organizations including the Association for Research in Vision and Ophthalmology and the Association of University Professors of Ophthalmology. I am also a past chairman of the American Board of Ophthalmology.

I am pleased to have the opportunity to thank you today on behalf of the scientific community for the support you have given our increasingly successful efforts in the prevention, diagnosis and treatment of eye diseases. The Congressional legislation which established the National Eye Institute has been a historic step in bringing the full capabilities of scientific and medical research to bear upon the tragedy of visual loss. The success of the new Institute and, the successful progress of eye research, now depends in a large measure upon the will of the Congress to provide it with adequate funds.

The magnitude of the problem of blindness and near-blindness is enormous, in terms of human suffering and in terms of economic loss. About one million Americans suffer from severe visual disability. Fifty thousand more become legally blind each year. The cost of blindness to the Nation is approximately \$2.5 billion a year. Yet, Federally supported vision research amounts to scarcely more than \$30 million.

The National Eye Institute has the responsibility of administering research grants to departments of ophthalmology that are the backbone of eye research across the country. It also has the responsibility of administering an intramural program of research within the Institute itself. I

assure you that the following request for funds for the Eye Institute has the support of the ophthalmological community, especially those of us who are involved in eye research and training programs, for neither the medical schools nor the National Institutes of Health receive financial support commensurate with the opportunities now available to save sight through research. The President's proposed budget still does not provide sufficient funds to grasp these opportunities, nor to carry out the fundamental objectives of a national program of eye research.

The Institute has had an auspicious beginning toward fulfilling Congressional expectations for eye research. A competent staff of research and administrative personnel has been recruited. Elements of the vision program of the former National Institute for Neurological Diseases and Blindness that were transferred to the National Eye Institute have been reconstituted and expanded for greater productivity and efficiency. The Institute's advisory and peer review systems have been improved for more effective planning and execution of ongoing programs. New space and equipment have been obtained. Most important, the Eye Institute is now identifying those areas of vision research most suitable for targeted development in which significant progress can be made by means of collaborative research.

Yet, with the Eye Institute now ready and anxious to move toward important specific objectives, it can only do so when sufficient funds are made available to carry forward an effective research effort. The 1972 budget for the National Eye Institute is seriously deficient. It is deficient in its inadequate funding of eye research and training. And it is deficient in its failure to provide for essential staff to administer the Institute's far-ranging and complex programs.

These deficiencies threaten the progress of work involving the detection, treatment and, hopefully, the prevention of hereditary and ocular inflammatory diseases, glaucoma, cataract, diabetic retinopathy, senile

degenerative disorders of the retina, and a host of other eye conditions that damage and destroy the visual process. I would like to review with you very briefly just a few of the recent advances in eye research to illustrate what is at stake in our request for realistic financial support.

Outstanding work leading toward improved diagnosis of diseases of the retina and choroid has been accomplished by a number of investigators with NEI support. A prime example of this is macular degeneration, a leading cause of uncorrectable visual deficiency and industrial blindness. Until a few years ago there was no known treatment for this condition, but with the advent of fluorescein angiography, electrophysiological studies, and clinico-pathologic correlations, approximately 15 to 20% of patients with these lesions can either be cured or prevented from losing further vision by photocoagulating the lesions with the laser beam. This condition has been extremely difficult to investigate because it does not require removal of the eye nor cause death of the patient, so that early histologic specimens could be obtained. Also, there is no known comparable lesion in lower animals. As a matter of fact, only primates, birds, and certain lizards have a true macular area which can be studied.

The combination of the diagnostic value of fluorescein angiography and the effective photocoagulation with the Argon laser beam, which can be focused on vessels as small as 50 micro in diameter, has allowed the effective treatment of vascular tumors in the choroid and retina, of neovascularization which results from diabetic retinopathy, and other forms of vascular occlusion.

Because of the inherited nature of diabetes and the fact that juvenile diabetics can now be kept alive during the child-bearing age, the prevalence of this condition in our population is increasing each year.

Unfortunately, there is no known therapy for the generalized vascular lesions which result from this enzymatic deficiency. Thus, the most common causes of death among such patients are cerebrovascular accidents, heart disease, and kidney disease. The retinal vessels frequently show the earliest signs of vascular damage. Cataracts are also known to be a frequent complication of diabetes. Recently a biochemist working under the National Eye Institute's support in a department of ophthalmology has found that the enzyme, aldose reductase, plays a crucial role in the development of sugar cataracts. Further investigation by this chemist has demonstrated that the aldose reductase is also responsible for many other vascular defects. Exciting studies are now underway by many chemists to find some method of preventing this enzymatic defect. Certain substances have been found which have prevented the formation of sugar cataracts in vitro, but these substances are still too toxic to be used in vivo. The solution to the vascular problem in diabetes would be one of the major medical breakthroughs of this century, almost comparable to the discovery of antibiotics, steroids, and open heart surgery.

Basic research work on the anatomical structure, electrical wiring, and biochemistry of the retina is one, if not the most, exciting area of neurophysiological research. The reason for this is the accessibility of the retina, which is an out-pouching of the brain, and the fact that the stimulus used to excite the retina, light, can be measured in exact quanta and therefore very much more precise measurements can be made on the central nervous system than can be made with other modalities, such as touch, pain, heat, cold, hearing, or smell. It has already been found that the retina has an amazing ability to decode information. Thus, certain cells respond to a stimulus of light moving in a straight line from left to right, but will not respond to light moving from right to left, or light moving in a

vertical direction, or in a pulsating fashion. The method by which light causes the photo receptors to undergo a chemical reaction which releases electrical impulses and the method by which these electrical impulses are transmitted from cell to cell, are also very exciting areas of investigation, not only for the understanding of the visual processes but also for solving the mechanism by which the central nervous system translates all of our experiences.

This basic research work in the field of neurophysiology of the retina has already paid off in clinical terms. For years ophthalmologists have noted that children who could not see during the first year of life either from congenital cataracts, cross-eyes, or other ocular abnormalities could never obtain normal visual acuity if these abnormalities were corrected later in life. It has now been demonstrated in experimental animals, both in cats and monkeys, that deprivation of clear visual acuity in the first few months of life prevents the normal development of the visual passways even if the animal receives normal visual stimuli later in life. Because of this, we are now operating on children with congenital cataracts in the first few weeks of life and correct their refractive abnormalities with contact lenses within the first month of life. The children so treated are still too young to obtain an exact evaluation of their vision; however, preliminary studies suggest that many of these children who would otherwise be industrially blind are now able to read moderate sized print.

A new instrument has been developed and is ready for marketing which may soon allow for a far more rapid and almost automatic measurement of visual refractive errors. This will permit large-scale screening for refractive errors with a minimum of time and manpower. It will save endless

hours of the highly skilled time of physicians and optometrists and thus millions of dollars in the fitting of glasses. Three of these instruments have been promised for large scale testing in August of 1971.

The development of hydrophylic or soft contact lenses for use as an alternative to the conventional lenses in correcting refractive errors has led to their experimental use in treating various corneal diseases. In trials to date, the use of the soft lenses as an adjunct to the treatment of a variety of infectious and traumatic conditions is most promising.

New methods of administering topical drugs into the eye are under study, promising reduction in the frequency of application of drops and ointments. Not infrequently, drugs which are either too toxic to use systemically or which if used systemically can produce dangerous side effects can be used quite effectively and safely when placed on the surface of the eye. However, a major problem has been in designing a method by which an effective concentration of these substances could be maintained in the ocular tissue. Animal experimental studies indicate that a method has been found for the successful delivery of such preparations.

Glaucoma is a condition which is medically manageable in most cases if diagnosed in time. A collaborative glaucoma study supported by the National Eye Institute of members of the family of patients who have glaucoma has indicated that this is an inherited condition in which the genotype can be identified. Various techniques are now underway to see if it can be determined which of these patients who have inherited the tendency to glaucoma will develop optic nerve damage. Again, fluorescein angiography has indicated that the primary defect is an alteration in the vascular flow

to the optic nervehead. Two new drugs may be extremely helpful in preventing visual damage from this disease. One strengthens the resistance of the optic nerve to damage and the other produces a chemical sympathectomy of the eye so that the intraocular pressure may be more accurately controlled.

These are just a few examples of the progress now taking place throughout the field of investigative ophthalmology with NEI support. In addition to such work, a new cooperative study is about to be undertaken to evaluate the various methods of treating diabetic retinopathy, a condition which has become a leading cause of new adult blindness. This will be the first systematic, scientifically-controlled study to determine the usefulness of techniques now being used to treat these dreadful visual complications of long-standing diabetes.

These are exciting and important developments in our efforts to preserve vision. Yet, the scientists who are carrying out this work have little reason to be encouraged by the Administration's budget. Rather, the inadequacy of support represents a threat to the development of their work.

The 1972 Presidential request of \$32,639,000 includes no increase whatever for new programs -- the only increase provides for the continuation of research grants awarded prior to 1972. This increase is offset by a decrease of \$2,685,000 for new and renewal grants, which will lead to a decrease of 60 awards in 1972.

This is a tragic situation. It would seem to ignore completely the concept of creating a National program to combat visual disorders. Latest available figures indicate that the Institute will have approximately \$7,085,000 in approved new and renewal grants which should be funded in 1972. Under the Executive budget, \$2,728,000 of these approved grants for

promising eye research will not be supported for lack of funds.

The budget for 1972 has been decreased by \$800,000 for support of ophthalmological fellowships. This, I assume, represents the removal of the \$800,000 increase for fellowships which the Congress approved in 1971. At the same time, the budget provides no increase for the training program, which remains at the same inadequate level. Obviously, such lack of foresight represents a grave threat to the manpower base for vision research, not only for the moment, but for years to come. The National Eye Institute has approved training grants for 1972 amounting to \$3,500,000. Many of these will not be funded under the Executive budget. It is a certainty that there can be no quality research now or ever without the availability of well-trained visual scientists.

Another kind of manpower problem, equally critical to the operation of the Eye Institute, arises from the failure of the President's Budget to provide sufficient positions to staff the Institute. Both the Congress and the Executive division have stated their concern for gaining an adequate number of positions for the National Eye Institute. In the hearings on the legislation to create the Institute in 1967, administration witnesses acknowledged that about 50 positions would be required for the minimal scientific and administrative management functions of the Institute. Instead, during the first year of National Eye Institute operations, only 32 positions were provided. This Committee, in its report on the 1970 National Eye Institute appropriation, took critical note of this fact and said that "This situation should be reviewed to determine whether or not the provision for Institute staffing is adequate to properly administer the grants program."

Your Appropriations Committee, in its review, heeded the House

and recommended an increase of 25 positions to correct the shortage. Unfortunately, and incredibly, in subsequent negotiations to overcome the effect of the appropriations bill veto, the entire 25 positions were cut from the final bill.

In 1971 the House Committee again recognized the scarcity of positions within the Eye Institute and commented as follows:

The Committee also wants to insure that the administrative structure of the new Institute is adequate in jobs and salaries and expects the director of the Institute to report this in detail next year.

Your Committee supported this view in its report:

The Committee repeats with greater emphasis the concern it expressed last year about the adequacy of Institute staff. Since its inception the Institute has been handicapped in its efforts to develop a capability for effective program management, planning and analysis. The Committee urges the Department of Health, Education and Welfare to make additional positions available to the Institute to meet the staffing requirements of an important new Institute.

While the Eye Institute continues to labor under these personnel shortages, it has been assuming new and greater responsibilities. Ironically, while Congressional foresight has provided the Institute with an expanding budget, no provision has been made for additional staff to properly administer these funds.

You should be especially distressed with this situation. A targeted research program could lead to major breakthroughs in improving our ability to handle some of the major causes of blindness today, including retinal disorders, glaucoma and corneal disease. Yet, despite this capability, the Eye Institute is not now in a position to administer this kind of effort. The will of the Congress in creating the National Eye Institute cannot be carried out effectively until sufficient money is made available for its essential programs.

I appeal to this Committee to take action to correct these serious lapses in the Executive budget. I urge you to increase the amount to be made available for extramural ophthalmological research grants from the Executive request of \$23,535,000 to \$26,500,000. You should note that this increase of \$2,965,000 will barely cover the amounts needed to finance grants already approved, but as yet unfunded. It will do little more than restore the decrease imposed by the Executive budget. I also urge that this Committee restore the decrease of \$800,000 by which the Executive budget would cut in half the \$1,676,000 approved by Congress last year for fellowships, and that \$500,000 be added to the training grants program. This would at least permit the funding of those grant applications already approved.

In addition we suggest that \$3,000,000 be included to advance targeted research efforts pertaining to glaucoma, corneal disease and retinal disorders.

The financial chart appended to this testimony permits a comparison between the amounts requested for the National Eye Institute in the Executive budget and the necessary amounts requested in the proposed Citizens' Budget. In examining the chart it is important to note that small financial increases have been included in the several categories which comprise direct operational costs of the Institute. We urge you to specifically authorize these increases amounting to \$300,000 to provide for an additional 30 staff positions for the basic administrative and program requirements of the Institute.

Testimony previously presented before the appropriate subcommittee of the House of Representatives supported a Citizens' Budget totaling \$40,979,000. I understand that the House has not yet acted on that budget

request. It is my hope that favorable action will soon be taken. If this does not occur, we trust that the Senate in its wisdom will move to increase the National Eye Institute budget to cover the financial requirements which I have outlined for the consideration of this Committee.

In summary I urge the Committee to increase the Fiscal Year 1972 budget to provide \$40,979,000 for the National Eye Institute.

NATIONAL EYE INSTITUTE

Program and Financing

Program by activities:	FY 1971 <u>Appropriation</u>	FY 1972 President's <u>Budget Request</u>	FY 1972 Citizen <u>Proposal</u>
1. Grants			
a. Research	\$20,972,000	\$23,535,000	\$26,500,000
b. Fellowships	1,676,000	876,000	1,676,000
c. Training	3,898,000	2,225,000*	3,500,000
<u> </u>	<u> </u>	<u> </u>	<u> </u>
Total Grants	26,546,000	26,636,000	31,676,000
<u> </u>	<u> </u>	<u> </u>	<u> </u>
2. Direct Operations			
a. Laboratory and clinical research	1,807,000	3,075,000	3,075,000
b. Collaborative research	1,332,000	1,332,000	4,432,000
c. Biometry, Epidemiology, etc.	330,000	385,000	435,000
d. Review and Approval	658,000	821,000	871,000
e. Program Direction	313,000	390,000	490,000
<u> </u>	<u> </u>	<u> </u>	<u> </u>
Total Direct Operations	4,440,000	6,003,000	9,303,000
<u> </u>	<u> </u>	<u> </u>	<u> </u>
TOTAL OBLIGATION	\$30,986,000	\$32,639,000	\$40,979,000
<u> </u>	<u> </u>	<u> </u>	<u> </u>

* Plus \$773,000 for transfer to Bureau of Health Manpower

STATEMENT OF MORTON L. SCHWABACHER, DIRECTOR OF THE
DIVISION ON AGING FOR THE CITY OF SEATTLE

NEEDS OF URBAN AGING POPULATION

Senator MAGNUSON. We will now hear from Mr. Morton L. Schwabacher, director of the Division on Aging for the city of Seattle.

All right, Morton, we will be glad to hear from you.

Mr. SCHWABACHER. Thank you, Mr. Chairman, and members of the committee.

Mr. Chairman, members of the subcommittee, my name is Morton L. Schwabacher. I am director of the new Division on Aging of the city of Seattle.

During the past 10 years I have participated in a number of organizations serving the aging.

I have just completed my fourth term as president of the Council on Aging for Seattle and King County and am a board member of both the Washington State Council on Aging and the National Council on Aging.

I have the privilege of serving as first vice president of Senior Centers, Inc., the largest private, nonprofit agency providing direct service to Seattle's elderly. Until recently, I served as one of five commissioners of the Seattle Housing Authority which provides low-cost housing to the elderly.

STATEMENT OF PURPOSE

I appreciate the opportunity to testify today on the critical needs of our urban aging populations. The situation in Seattle will, I think, serve as a pertinent example.

Briefly, my testimony will cover: The need for a comprehensive national policy on aging, an outline of the Seattle story and a few recommendations for congressional action.

COMPREHENSIVE NATIONAL POLICY ON AGING

As an OEO report put it recently, the image of the Golden Years is a tarnished myth.

Today approximately 20 million Americans are 65 years or older.

By 1990 they will number 30 million. Yet for many of these individuals, old age has come to mean poverty, illness, loneliness and rejection.

The quality of a society may be judged by the way it treats its older citizens. So far we have treated ours with too much neglect and too little genuine concern. As a result, one-third of our poor are old and nearly one-half of our old are poor or near-poor.

Surely the senior citizens, who fought two wars and a major depression and who worked to create the affluence many of us now enjoy.

We must re-order our national priorities.

We must renew our commitment to abolish poverty for all our citizens.

And, above all, we must give up our efforts to patch together partial, temporary, emergency solutions to major, permanent social problems.

The White House Conference on Aging has set the goal of establishing a comprehensive national policy on aging. Unless the Congress makes available and the administration releases sufficient funds for implementation, this goal will remain just another empty promise.

DIVISION ON AGING IN SEATTLE

Creation of a Division on Aging within Seattle's new Office of Human Resources reflects a growing commitment on the part of the Mayor and the City Council to devote more attention to alleviating the problems of our older citizens, and helping them maintain their independence and dignity.

The division's role in the community will be one of advocacy for the rights and interests of older people. We hope to serve as convenor of all the agencies serving the elderly in the city and as a catalyst to encourage expansion and innovation in aging programs.

THE SEATTLE STORY

The story of Seattle, 1971, is, I believe, typical of what happens to a city and its surrounding communities in a time of economic crisis.

Today, with a population of 530,000, nearly 70,000 or 13 percent of whom are persons 65 and over, Seattle has been hard hit. We have a depression.

The State of Washington is suffering from a financial crisis, necessitating severe cuts in welfare benefits and other social services.

United Good Neighbor funds are being cut across the board, affecting dozens of other vital social agencies. When I speak of the UGN or United Good Neighbor Fund I am referring to what may be known elsewhere as Community Chest, United Fund or United Way.

Seattle area unemployment has passed the 14-percent mark. Twenty-five thousand claimants will soon exhaust the second extension of their unemployment benefits. The number of people on welfare has doubled and the number receiving food stamps has quadrupled.

Because of complicated eligibility requirements for food stamps and medical aid, hunger, malnutrition and serious medical difficulties have become facts of life for thousands more of our people. Thirty-four food banks and 11 free clinics, operating from day to day on private donations, have been set up. But they are not enough.

For the aging, these difficulties and inflation come on top of regressive sales and property taxes, all of which severely strain the meager, fixed income from social security and old age assistance.

Over two-thirds of all elderly have social security as their only source of income. Never have our basic needs been so great nor our financial resources to meet them so inadequate.

Federal moneys coming into the State of Washington for aging, through AOA and OEO, are limited, amounting to only about \$765,000 last year. Seattle's share, about \$190,000, is totally inadequate to help us meet the identified needs of older people in our community.

PROFESSIONAL AND ORGANIZATIONAL CAPACITY IN AGING

Seattle's paradox is that it only lacks adequate funds. It already has the professional and organizational capacity to serve the needs of its older people. A rundown on this situation speaks volumes.

The Council on Aging for Seattle and King County, funded by UGN has a very competent staff which has researched the priority needs and drawn up plans for services to our local elderly which far exceed the community's present financial ability to implement.

Senior Centers, Incorporated (SCI), operates three large and four small centers in the city providing comprehensive, direct services.

AOA funds helped to get this agency started but were withdrawn gradually.

UGN is not able to maintain adequate funding and this year has had to cut its contribution to senior centers by 17 percent.

SCI also operates the model cities aging program and is anxious to expand its work in the city and out into the county.

Extended services to the elderly is an OEO program offering outreach services to isolated, lonely old people and does related research and planning. It has a proposed meals-on-wheels project which so far has only been partially funded by OEO.

Basic operating funds are minimal as well as insecure, causing a disruptive funding crisis every year.

The University of Washington's School of Social Work has a project on aging.

The project is a leader in community education and has trained many young students who are now active in the field of aging in our State.

My assistant is one of them. But here, too, a yearly funding crisis diverts attention from service and community organization activities to endless hours of grant writing and lobbying.

SPECIFIC EXAMPLES OF PROGRAM FUNDING PROBLEMS

Recently, we have had two dramatic examples which show how inadequate funding has crippled vital service programs with proven worth.

The Columbia Club was funded as an AOA research and demonstration project and was sponsored by the First United Methodist Church.

It served 150 isolated older people a hot lunch 5 days a week and provided an opportunity for socializing.

The program was terminated after 2 years even though it had proven itself. In fact, surveys showed that at least 500 persons in the target area needed this service. AOA is about to fund the program again, but for only 1 year and without the needed expansion.

Senator PERCY. How long was that program shut down?

Mr. SCHWABACHER. It was shut down nearly a year, over 6 months.

This example illustrates a vital point about the seed money principle under which these grants are offered.

The idea is that the Federal Government will put up most of the money—say 80 percent—and the community will raise the balance.

At the end of the grant period, when the Federal money stops, assuming the program is successful, the community is supposed to pick it up and fund it permanently.

This simply does not work in most cases. Usually the community is not able to provide the amounts originated by the Government. As a result, many fine programs die.

A few days ago, just before I left Seattle, another crisis arose. The Visiting Nurse Service, a nonprofit agency, has been giving 175 old people an average of 2 hours per week of home health aid. This care enables them to live independently.

Those who have studied about aging realize that living independently is the most important thing for older people.

In fact, it lengthens their lives greatly.

The problem is that State public assistance pays only about half the cost, the balance of which must be made up by the agency's UGN funds.

These funds are running out and the caseload is growing. The State is having difficulty increasing its payments.

Yet, without the increase, about 90 percent of these old people will have to be put in nursing homes at State expense.

The service is scheduled to collapse today.

The comparison is 1 month of this nurse service—Visiting Nurse Service—costs about \$50 per person, whereas in a nursing home, it costs up to \$400 per person, and more important, being put into a nursing home means the end for these people. I have a letter here from the visiting nursing service explaining this crisis, and I would like to submit this for the record at this point of the record.

Senator MAGNUSON. Without objection, so admitted.

(The letter follows:)

VISITING NURSE SERVICE

MISS JOE McCALMONT SCOTT
President

Room 1000, Public Safety Building
SEATTLE, WASHINGTON 98104
MAin 4-1047

BEVERLY N. HUCHALA, R.N., M.N.
Director

July 8, 1971

Mr. Morton L. Schwabacher, Director
Division of Aging
Office of Human Resources
City of Seattle
88 South Main Street
Seattle, Washington 98104

Dear Mr. Schwabacher:

Because of grave financial difficulties the Seattle-King County Visiting Nurse Service, for the first time in its history, is faced with the prospect of refusing care to the sick and dying of this community. Unless some solution to our problem can be reached before July 15th we will be forced to adopt a policy that is contrary to our basic philosophy and community health care goals but which is necessary if we are to survive as a home care service.

This agency is a non-profit, private corporation which operates within the structure of the Seattle-King County Health Department. Our income is derived from Medicare, United Good Neighbor, fees from patients, Department of Public Assistance, and a few private contracts: Medicare pays us actual cost of care, our UGN funding has been severely cut because of fewer available community monies, most patient fees are part-payments, and the Welfare Department only pays us a portion of our actual cost of care. Although UGN funding is aimed primarily at the patient just above the Welfare level, much of those funds have been going to support the portion of cost of patient care that the Welfare Department does not pay. Unfortunately, with the economic climate in Seattle worsening daily and as Medicare becomes more restrictive of the kinds of home care for which it will pay, the Welfare caseload increases and so does the drain on our very limited resources. In fact, the difference between our cost and the amount the Welfare Department returns to us toward that cost has reached such monumental accumulative proportions that we must cut back drastically in order to survive. This decision is especially painful in that 175 welfare patients will be denied a minimum of necessary home health care because of lack of sufficient funds. Many of these patients are senior citizens and are able to maintain themselves in their own homes with a minimum of Home Health Aide care. We feel the service we offer to the patients and the community is of the kind that supports the human dignity of the patient who wants to stay out of a nursing home and that this care is offered at a much lower cost of care than nursing home or hospital care.

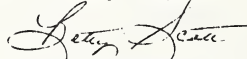
Mr. Morton L. Schwabacher, Director
Division of Aging, Office of Human Resources

July 8, 1971
Page 2.

More specifically, the number of Home Health Aide hours per month for Department of Public Assistance patients averages 2,800 hours; at a rate of \$5.64 per hour, which is the cost to us for this service, this amounts to \$15,792.00. The Department of Public Assistance pays us, at the rate of \$3.35 per hour, the sum of \$9,380.00, leaving a deficit amount of \$6,412.00 per month. If the 175 patients we are now serving are transferred to Class II nursing homes, provided available beds can be found for these patients, at the rate of \$8.69 per day, the cost will be \$45,622.50 per month. Actually, the cost may well be more since some of the patients will require Class I nursing home care at a higher rate. However, if the Department of Public Assistance would pay us our costs by making up our deficit of \$6,412.00 per month, they would actually be saving \$29,830.50 each month in patient care.

In addition to the economics of the matter, the human element is overwhelming. I am attaching hereto some typical case histories involved in this change of service. The health needs of our entire community are our prime concern, but the welfare and basic needs of these people is the concern of all of us in this community. We will be most grateful for any assistance that your office may be able to offer.

Yours very truly,



Mrs. Joe McCalmont Scott
President
Board of Directors

BS:hd
attachments

Seattle, Wash
July 3, 1971.

Dear Mrs. Scott:

I have been very nervous and upset since receiving your letter. I have always tried to keep the Home Health Aide visits as low as possible. Since a week for 2 hrs.

I have rheumatoid arthritis, where every joint in my body is effected. Its impossible for me to reach my legs and feet as knees and feet are ankalased; With very limited hip movement. Its impossible for me to reach my head; due to limited use of my arms. I can move around some with crutches.

The Home Health Aide soaks my feet, has to use Molekskin on several spots on my feet to prevent sores, etc. Shampoos my hair, set me roller; under dryer, while she works on my feet; Removes rollers as I cant reach them (use long handled comb to comb out my hair each day.) She takes out my garbage; puts what I need within my reach, etc. Alternates weekly.

The next week she does my feet and legs; while soaking, she changes my sheets, Vacuums, puts out garbage and what I need for the week within my reach. She works fast to get everything done.

H

I have no one to help me, and without the help of the Home Health Aide, I'm desperate.

Until a person has such an affliction you can't realize how helpless a person can be. I'm trying to keep myself out of a Nursing Home, and I can manage as long as I have the desperate need of the Home Health Aide.

This is an emergency. Please help me!

Sincerely

RECEIVED

JUL 6 1971

NURSING ADMINISTRATION

63-792 4223

...ing to D.H.A. case load being served by our home health Aide service.

1. Patient H., aged 73 years, male, former law officer, suffering from Multiple Sclerosis and pneumonia, has had two strokes and is bed-ridden. His daughter aged 49, also lives in this home and suffers from MS and a chronic bladder condition. She is in a wheel chair. Mrs. H., the wife, and mother of Rita, cares for both these patients in the home with 37 hours per month of help from the Home Health Aide, and she finds it impossible to face the prospect of breaking up the home and putting her husband and daughter in nursing homes. The Home Health Aide in this case, gives sponge baths, douche for Rita, shampoos, helps with exercises (standing) for the daughter and assisting in use of stairs and walking, changes linens and assists in transfer of patient H. from bed using a Hoyer lift. She also relieves the wife who is on active duty with these people 24 hours a day. Patient H. needs encouragement in the use of his hands which are now the only parts of his body he can use; he also suffers from an ulcerous bed sore which requires constant care. The 37 hours of Home Health Aide care at \$5.64 per hour costs \$208.68 per month. The alternative is Class I nursing home care for H. at a cost of \$333.60 per month and Class II nursing home care for Rita at the cost of \$260.70 per month or a total of \$594.30 per month.
2. Patients Irene and Jack, a married couple in their 50's, both are retarded and both live with an elderly friend for whom they care in the friend's home. Irene has terminal carcinoma of the kidney with metastases of the lung. The elderly man with whom they live is senile and feeble. The retarded husband cares for both his wife and friend with the assistance of 19 hours of Home Health Aide care per month. The alternatives are nursing home care for the wife and some kind of custodial care for the husband and the elderly man. Home Health Aide care costs \$108.96 per month. Nursing Home care for the wife alone would be \$333.60 per month.
3. Patient Barbara is 55 years of age, her husband is 80 years old. Barbara has emphysema and requires constant oxygen. She has 6 hours of Home Health Aide care per week at a cost of \$135.36 per month. The alternative is Class I nursing home care at a cost of \$333.60 per month or hospitalization.
4. Patient Genevieve is 36 years of age; she has a terminal pulmonary condition. She has 4 minor children aged 6, 7, 8 and 10. She is divorced. The Home Health Aide service has made it possible for her and her 4 children to remain together. The Home Health Aide cleans the breathing machine for the patient, helps her with personal care, helps with meals for the youngest children and sees them off to school. She goes to this home four hours a day, 5 days a week or about 80 hours a month at a cost of \$451.20. The alternative is nursing home care or hospitalization for Genevieve and foster homes for each of her 4 children. The break up of the home situation is a critical factor.

Attached hereto is a copy of a letter we have received from a patient in response to our notice of termination of service sent out July 1, 1971. We think this letter speaks as poignantly and movingly as anything we might add about the service continuing and for the need for funds to keep it a part of our community health service.

INQUISITORS CLUB: NEED FOR FINANCIAL ASSISTANCE

Mr. SCHWABACHER. Not only have established services been hurt, but valuable new ones have not been able to get the funds they need.

The Inquisitors Club, for example, was founded by one man who saw the acute transportation problems of retirees and handicapped people and decided to help them out.

A heavy equipment operator, he took his own savings, borrowed some money, bought an old Greyhound bus, fixed it up, and started taking old people to shopping centers and medical facilities and even on weekend trips around the Northwest. He charges very little and so far is just breaking even.

His application for an AOA grant was not approved. But with financial assistance, this popular and necessary service could be expanded.

CONCLUSION AND RECOMMENDATIONS

I would like to conclude my testimony with the introduction of a few recommendations for congressional action.

(1) *Income*.—The elimination of poverty among the aged by 1980 should be a top priority goal for the Congress, as well as for the White House Conference on Aging. It was a top priority goal for our recent Washington State Conference on Aging.

(2) *Comprehensive services*.—A comprehensive, nationwide network of essential facilities and services for the aging in housing, health, transportation, and community activities should be set up.

For this purpose, Congress should make available and the administration should release adequate funds to the Administration on Aging, the Office of Economic Opportunity, and other related Federal agencies—instead of doling the money out in dribs and drabs.

The AOA areawide projects are a step in the right direction and should be greatly expanded to include several in each region of HEW. Seattle and its satellite cities are already working to develop such a project.

(3) *Demonstration programs*.—Allocations for innovative research and demonstration programs should be increased and maintained.

(4) *Permanent programs*.—Demonstration programs which have proven their worth should be made permanent with sufficient Federal funding. It is very evident that local communities generally lack the financial resources to pick up and develop programs begun with Federal "seed money."

(5) *Direct funding*.—Finally, Federal funds for aging services should be made directly available to those cities and metropolitan areas which have the professional and organizational capacity to develop comprehensive service systems.

In Seattle we have such a capacity, but we must have financial assistance from the Federal level in order to exercise our potential.

Thank you.

Senator MAGNUSON. Thank you, Morton. We appreciate your review of what you have been doing.

I want to say to the members of the committee, Mr. Schwabacher has devoted his own time over the period of some years to this work. He has done it on his own initiative and without any pay, and he is one of our most distinguished citizens.

I understand from the gist of your program that what has been happening is that we have great ideas of how to start programs, and then the community gets busy, and they get going, and it seems to be worthwhile, and then we leave it, the Federal Government leaves it. Hopefully and in better times it might have been easier to pick these programs up, but where you have an area that does not have those times, the program just drops and all of these hopes get high in the air and then go down.

You are making a plea here irrespective of the funds that there be some policy of permanency involved here. Even if you had to have fewer projects, but more stable projects, you would be better off, is that right?

Mr. SCHWABACHER. It would. I would hate to have fewer, but it would be right.

Senator MAGNUSON. Now, this committee has done, what I think is some good work on programs for the aged in the past 3 years.

We have upped it considerably, and this budget is upped from \$27 million last year to \$33 million, and I think if we looked to 1968 and 1969, the increase would be greater.

I think one time the Senator from New Hampshire was complaining about a meager \$3 million for the whole program for the aged to get the thing started. In the meantime, we passed some fairly good legislation which is now being implemented, but I think you are correct on this business of having some stability. Once you get a program going, keep it going, instead of encouraging all kinds of programs, and then they all go down the drain.

In this special programing for the aged, I think you can look forward to a little better funding, at least for the coming year, than you had last year or the year before. I am hopeful that our economic situation will be such that we will do more, but here is a pretty good example of what they have been doing in a voluntary way.

Part of the money was given by what we call—

Mr. SCHWABACHER. UGN.

Senator MAGNUSON. Yes, UGN, but that is down?

Mr. SCHWABACHER. Well, they backed this 20 percent last year.

Senator MAGNUSON. They need to back you up more, but they can't. And then they get money from the cities—it is like pulling teeth from the hen—and that source is dried up also.

That is a condition that is nationwide. The States do not cooperate sometimes as much as they should in a program that is envisioned by a city, particularly in this field. We will do what we can to see what we can do with this fund, and see if we cannot encourage policies of permanency and stability.

Senator Percy and Senator Cotton and I have been active in appropriations for this. I am sure Senator Percy wants to say something.

Senator PERCY. I would like to thank you very much indeed.

My son and daughter-in-law are residents in Seattle. They are hardly ready for funds for the elderly yet, but they are deeply interested in improving the quality of life in Seattle, and deeply depressed about the 15 percent unemployment.

I would just like to go down the list you have here of recommendations on page 6.

On income, maintenance of income is important.

Specifically, do you support the President's family assistance program? Do you think putting a floor under family income is necessary in this country?

Mr. SCHWABACHER. Yes, but I think the floor could be higher. As I recall it—

Senator PERCY. You support the principle, but it is just a matter of how much. The income floor now in the House bill is \$2,400, and you think it should be higher than that?

Mr. SCHWABACHER. Yes.

Senator PERCY. Would you support an exemption from social security tax of up to \$1,700 for individuals over 65 who work to supplement their incomes?

Mr. SCHWABACHER. I would.

Senator PERCY. I have a bill in on that. I appreciate your supporting it.

I think it is an inequity to have somebody continue to pay social security after 65.

Under the comprehensive services you mentioned housing.

Would you support a concept of having an Assistant Secretary of Housing for the Aged?

I have a bill in for that, and Secretary Romney called me to say that he thought it was a worthy idea to have a special assistant right away. Do you feel the problems of housing for the aged will be such that it deserves the full-time attention of an Assistant Secretary?

Mr. SCHWABACHER. Right now, I think so; yes.

Senator PERCY. You mentioned transportation as a recommendation, using interstate commerce. On all local transportation including mass transit that has Federal assistance, would you go along with a half-fare for everyone over 65, providing they ride in nonrush hours or on a seat availability basis?

Mr. SCHWABACHER. I do not know if half would be enough. I think it would be more for anybody over 65. For instance, in San Francisco, I believe it is 5 cents, but the principle I would certainly support, yes.

Senator PERCY. I bow to your generosity, but my legislation only provides for half fare. I would like to commend at this time, Mr. Chairman, Pan American Airlines who have just announced that they will petition for the right to have people over 65 go overseas for half fare on a seat availability basis.

What is good for the goose is good for the gander, and I fought very hard in the city of Chicago for schoolchildren to travel at reduced fares during nonrush hours. It helps our mass transit system, fills empty cars, and takes people off the rush hour. If we can get that same right on every bus, on every plane, and in every train in America, to see that the older people who have the time and can wait for a seat to be available, we will make a great step forward. I think that support by the ranking minority member, the chairman of this subcommittee, would be extremely helpful, and then I did want to ask you about services and facilities for the aging.

You mentioned that you had some facilities that are not being funded any longer or that are inadequately funded.

I have a bill in to help erect community centers for senior citizens. We have done a lot for young people, and this committee has done a

tremendous amount to provide help for day care centers, to help provide better facilities for health care, and to provide housing, for instance, for the college students, and so forth. But do you find a great value in having a community center for older people, where they can come, congregate together, perhaps have a community feed-in, get group transportation, have a little social life and activity and sort of feel they are not alone in the world?

Mr. SCHWABACHER. I do, and I mentioned here that I was on the Board of Senior Centers, Inc., which now operates four senior centers, which is not only recreational, started as just recreational, and now it has health counseling and pretty much the whole gambit, and it gives them almost like a club of their own, and it is great for their moral, and this is the one where the support has had to dwindle away on account of the loss of the AOA funds, and the plan of senior centers, when the funds began to disappear, I was for going out and operating and opening more centers in the city and even going out into the county, but they have not been able to do it, but I think it is one of the most important things for the spiritual well-being of these people.

Senator PERCY. I felt it is a tragedy that the feeding program operated by the United Methodist Church has been closed, and I am rejoiced by the efforts of the chairman and ranking minority member in the assurances they provided the floor, and the administration has now provided \$1.7 million to start these programs back up. I want to ask you this question. Taking into account all of our national priorities, how high in priority would you place a feeding program for the elderly where there can be some community feeding, allowing the people to contribute on an ability-to-pay basis? It at least allows them to get one hot meal a day.

Mr. SCHWABACHER. It is very high, and the reason is, with this one in Seattle, it started out really aimed at isolated single men over 65, because they seemed to be the ones who are at the most lost, they do not know how to socialize.

Senator PERCY. They do not know how to cook.

Mr. SCHWABACHER. They do not know how to cook, they sort of crawl into a hole and they are lost, and when this Columbia Club started, the first few days they had about 15 members who kind of wandered in, and most of them were women so they had to do some working to get the men started, and the men came, and they really looked like bums, they were unshaven tramps, and about a month later they noticed that these same men were still coming, but now they were shaven, they were well dressed, it really had made a great deal of difference in their mentality, and their whole point of view of life.

Senator MAGNUSON. They started to look like old Senators, didn't they. [Laughter.]

Mr. SCHWABACHER. I refuse to answer.

Senator PERCY. I would say those that cannot cook would not include our distinguished chairman of this full committee who puts on a great feast for us once a year.

I remember one pathetic letter from a woman who wrote to me saying she now has for the first time in years some place to dress up to go to.

She said, "I don't see the doctor as much now. I have some hope. I am going down to see some friends and have that meal," and it gave her a whole new lease on life, and her whole spirit was upraised.

I am delighted to have this firsthand testimony from you, however, I apologize for taking so much time on it. I did want to ask you about the direct funding. There is a problem here that the cities and States just do not have the money.

Do you support the concept of revenue sharing?

Now, I trust yours is a bipartisan concept. There is no trademark on it.

Do you think that if we were to implement revenue sharing by the Federal Government the cities would then pick up this money that will be provided to them, and would they use it for the programs for the aging so there needs to be less direct funding from the Federal Government?

Mr. SCHWABACHER. I am sure they would. I would hope that if that sharing takes place, that possibly we should be told a certain amount should go to the aging, but I am sure that Seattle, for instance, would know better what to do with money for Seattle than the State would or anybody else.

Senator PERCY. Well, there are many other aspects to this problem, and we would all love to get into it, such as the nursing homes, but those are problems that we all know we have got to deal with, and we are in our own deliberative way starting to move in on that program.

I want to thank you very much indeed for being here. It is a long trip for you, but very rewarding for us.

Senator COTTON. Mr. Chairman, I want to interpolate here that this has been an excellent dialog that we have listened to; in fact, as Senator Percy got into his bills, I began to think I was back in my courtroom days, and I was going to say, "Your Honor, I object. He is leading the witness." [Laughter.]

I commend you for your statement, and I suspect if we had a few more gentlemen of your dedication in each of our metropolitan areas, we would not have to have so much legislation. They might still need the money, but we might not need to legislate so much.

I commend you for what you have been doing.

Mr. SCHWABACHER. Thank you very much. I do want to say, Senator, I want to correct you, on my present job I am paid.

Senator MAGNUSON. Fine.

Senator PERCY. Though it is inadequate, I am sure.

Mr. SCHWABACHER. For an old man, yes.

Senator MAGNUSON. It is a city job?

Mr. SCHWABACHER. That is right.

Senator MAGNUSON. But you have given a lot of time without being compensated for it for many years.

Mr. SCHWABACHER. Yes, but it has been worth it. Mr. Chairman.

Senator MAGNUSON. I thank you very much.

Mr. SCHWABACHER. Thank you, Senator.

STATEMENT OF DR. WAYNE R. MATSON, VICE PRESIDENT AND TECHNICAL
DIRECTOR, ENVIRONMENTAL SCIENCE ASSOCIATES, INC.

Senator MAGNUSON. A statement submitted to the subcommittee by Dr. Wayne R. Matson will be printed in the record at this point.
(The statement follows:)

TESTIMONY BY DR. WAYNE R. MATSON, VICE PRESIDENT AND TECHNICAL DIRECTOR,
ENVIRONMENTAL SCIENCES ASSOCIATES, INC., CAMBRIDGE, MASS.

Mr. Chairman and members of the committee, I am Dr. Wayne R. Matson, Vice President and Technical Director of Environmental Sciences Associates, Incorporated of Cambridge, Massachusetts. The purpose of this testimony is to introduce you to a technological advance in the determination of minute quantities of lead in blood which decreases the cost of sampling and screening a child for elevated blood lead levels, and also increases community acceptance of blood lead screening programs.

Environmental Sciences Associates has been engaged since 1969 in the construction of equipment and the development and testing of clinical procedures and equipment for the analysis of lead in a few drops of blood from a fingerprick by use of anodic stripping voltammetry.

These clinical techniques and equipment procedures have been undergoing testing since May of 1970, in laboratories that are used as references in the field, to evaluate their performance with respect to the dithizone method, which is the basic accepted standard.

Since January of 1971, under programs developed by the Bureau of Community Environmental Management in the Department of Health, Education, and Welfare, the equipment and clinical procedures have undergone field trials in the actual screening of children in our own laboratories, and in hospital or public health laboratories in Boston, Rochester, New Orleans, and Norfolk. To date, approximately 4,000-5,000 children have been screened using this microsample methodology, and the frequency distributions of blood lead in children and the precision of the procedure have proved comparable to those obtained by laboratories across the nation doing lead analysis by macro-methodology.

Contamination was believed to be a problem for any micro-technique. However, in field tests, by opening and exposing test tubes during the actual screening of children, it has been shown that the total ASV micro-methodology system is not subject to contamination.

The ASV technique is non-destructive and each sample may be retained for further testing or rechecking by other reference laboratories. In addition, other metals, such as cadmium, copper, and zinc can be simultaneously measured, which can be useful in future screening programs.

ASV's proven instrumentation and techniques are also applicable to measurement of air, water, paint, street dirt, and other materials which may serve as sources of lead poisoning.

There are several significant effects of doing blood lead on a microsample of one to two drops of blood:

(1) Blood lead as a diagnostic is the most reliable and generally accepted test for lead poisoning.

(2) The ability to draw a fingerprick reduces the number and qualification of the personnel required to sample the children, and the quality of the facilities required for sampling. Indeed, it is probable that there are not enough qualified people in the country to draw macro-samples from all the children in need of sampling. The effect of the micro-technique is to reduce the cost of sampling to \$1-\$2 from perhaps \$10-\$20 when taking a macro-sample.

(3) The community acceptance of a fingerprick sample, where very few (2-5%) of the children cry or become afraid, is much greater than for a vein puncture where a nurse or technician is needed to hold the child down and frequently, the child panics and becomes hard to manage. This acceptance makes follow-up easier, and the cost of rechecking and calling in a child for treatment is, therefore, further reduced.

We feel that the utilization of these procedures can reduce the cost of sampling and analyzing a child from a current estimated level of \$20/child (per million children) for a macro method, to a cost of \$5/child (per million children) for the micro method. This should free approximately \$15/child (per million children) or \$15 million (per million children) for treatment of the cases of lead poisoning found, for education of the population, and for attacking the problem of eradication of sources of the poisoning.

INTRODUCTION BY SENATOR PERCY

Senator MAGNUSON. Now we have some witnesses that have to leave early, but I do want to call James Heyworth from Chicago; and, Senator Percy, would you want to introduce him?

REHABILITATION INSTITUTE OF CHICAGO

Senator PERCY. I would very much like to do so. They are old friends of this committee, and I do not feel an introduction is needed.

I feel I would be derelict if I did not say it is a debt of gratitude that we all feel toward this committee, and to you as chairman, and to its ranking minority member, who have really helped this rehabilitation research and training center in Chicago. These gentlemen here today have really laid almost every brick; and without the help of this committee, this simply could not have been done.

The institute, which began in 1968 as a result of this subcommittee's request for a rehabilitation center in the Midwest, is entering its final stage.

Mr. Heyworth is present, and he will present to you a statement. I need not remind my colleagues that this is a project in which I have taken very special and deep interest. Its existence is vital to the Midwest in providing rehabilitation facilities for the disabled. It is really a center to rehabilitate the handicapped, as well as being a research and training center.

The center has affiliation with Northwestern University, and it has strong support from the community leaders in Chicago.

Our two witnesses today have been absolutely tireless in their efforts to keep the project going, and now they are in the home stretch for financing of construction, and I know this committee will want to give its special consideration to the status report.

All of the results of the research and training efforts will be available for the whole Nation, and I commend my distinguished constituents for their efforts and for their being here.

Senator MAGNUSON. I might say, Mr. Hayworth and Dr. Betts, since this has been going, I have listened to the Senator from Illinois on this committee and on the floor, and I got the impression after just a short time, I thought he was actually running it himself. I thought he just comes down here, and he goes right back and runs it. That is the interest he has conveyed around here in this particular project, so we will be glad to hear from you.

STATEMENT OF JAMES O. HEYWORTH, PRESIDENT OF THE REHABILITATION INSTITUTE OF CHICAGO

ACCOMPANIED BY DR. HENRY B. BETTS, VICE PRESIDENT AND MEDICAL DIRECTOR OF THE INSTITUTE

RESTORATION OF DISABLED MEN, WOMEN, AND CHILDREN

Mr. HEYWORTH. Thank you very much, Mr. Chairman, and Senator Cotton and Senator Percy.

Thank you for this opportunity to appear before your committee. I am James O. Heyworth, president of the Rehabilitation Institute of Chicago.

With me is Dr. Henry B. Betts, vice president and medical director of the institute.

In previous years, we have furnished to the committee the background information on the Rehabilitation Institute of Chicago, so that you probably are familiar with it.

However, I am including this information, along with a brief summary of the congressional interest in our project, as attachments to this statement, both for the record and so that the new members of the committee—Senators Proxmire, Montoya, Hollings, Percy, and Brooke—may have it readily available.

COMMENT

Mr. Chairman, the project which we undertook some 4 years ago has progressed well because of the interest and the help provided by this committee. I want you and the members to know that we are deeply grateful for what you have done to help make this undertaking succeed for thousands of disabled people in our Midwest area.

STATUS

The funds we are requesting here today, as part of the appropriation for the Social and Rehabilitation Service, Department of Health, Education, and Welfare, represent the final stage in the financing of this project.

If they are approved, we will be able to proceed with construction and complete the project without further Federal financial assistance.

Back in 1960, plans were made for providing a rehabilitation research and training center to serve each section of the country. These centers were conceived as "centers of excellence," to plan and conduct advanced research in rehabilitation; to provide the best teaching programs for professional, technical, and supporting personnel; and to provide patient care to selected numbers of severely disabled persons.

The plan was to provide such a special facility in each of the major geographic areas of the country, with each center having a close affiliation between the clinical rehabilitation facility (such as the Rehabilitation Institute of Chicago) and a major university medical school with all its supporting resources (which in our case is the Northwestern University-McGraw Medical Center).

By 1967, our Midwest area of Illinois and adjacent States was the only remaining area of the country which did not have such a specialized center.

The Rehabilitation Institute of Chicago proposed to establish such a center at the institute and to construct a new building to house this special facility. The condition of the present physical plant is described in attachment No. 1 to this statement.

PROGRESS

With the interest and support of this committee, along with literally hundreds of leaders of business, industry, the professions, and civic life throughout Chicago and the State of Illinois, this project to construct a new center has proceeded exceedingly well.

Our project is proceeding on almost precisely the basis we reported to you previously.

The preparatory architectural work, the engineering studies, the meshing of these plans with those for the other new buildings in the Northwestern University-McGraw Medical Center complex, have been completed.

PRESENT STAGE

We plan to issue invitations to bid this month, and to award a contract during August this year and proceed to construction immediately thereafter.

RELATIONSHIPS

The excellent relationships we have developed during the past 3 years among local, State, and national organizations, both private and public, continue to give us important encouragement and support in this project.

In Chicago we have had the consistent approval and support of the Hospital Planning Council of Chicago, and a long list of civic, municipal, and professional leaders.

In the State of Illinois, we have enjoyed the cooperation and assistance of Mr. Alfred Slicer, director of the Illinois State Division of Vocational Rehabilitation; Mr. Aden Clump, of the State Hill-Burton authority and his associates; the Illinois Department of Public Health; the State clearinghouse, Office of the Governor, for the State of Illinois; the Northeastern Illinois Planning Council; and others.

The regional office of the Department of HEW (region V, Chicago) has given us excellent assistance and we have had splendid working relationships with the Rehabilitation Services Administration, Social and rehabilitation service in the Department here in Washington.

PRIVATE MATCHING FUNDS

In Illinois, we have a matching rate which requires that two-thirds of the funds be furnished by the grantee (in this case, the Rehabilitation Institute of Chicago) and one-third by the Federal Government.

This statutory rate applies both to the Vocational Rehabilitation Act, with which we are concerned here today, and to the Hill-Burton program.

Early last year we began a campaign to raise \$18 million from the private sector for this project.

In spite of the fact that we were working during a period of considerable economic uncertainty, the results of that campaign have been remarkably good. The private sector of Illinois and other States, encouraged by the action of your committee and by the early grants made by the Social and Rehabilitation Service in HEW, has demonstrated that it is prepared to pay its share of these costs.

As of May 31, 1971, we have received gifts and pledges approximating \$8.4 million. I am proud to report that more than \$3.9 million of this has come from members of our own official boards. Another \$1.6 million is from the business community and the balance from private foundations and individuals.

The importance which the Chicago community attaches to this project is shown in some of the gifts received. Five of the most sophisticated charitable foundations in the Chicago area—the Chicago Community Trust, the Standard Oil (Indiana) Foundation, the Robert R. McCormick Foundation, the Woods Charitable Fund and the Field Foundation—have all contributed, and their average commitment is \$250,000.

The Chicago Rotary Foundation, which already is giving strong support to our work with children, has pledged \$250,000 and two corporate bellwethers, Commonwealth Edison Co., and Sears, Roebuck & Co., have each pledged \$75,000.

This kind of support is not given lightly. From Michigan, the Kresge Foundation intends to make a “topping off” grant of \$400,000.

We expect to realize another \$2.5 million from the sale of our present land and building. Hence, our available assets, exclusive of Federal funding, now total \$11 million. We continue to receive significant gifts and we expect to raise two-thirds or more of the total cost from the private sector.

HILL-BURTON

The State Hill-Burton authority in Illinois has approved this project and plans to help with part of the cost, on those phases of the construction which pertain most directly to the objectives of the Hill-Burton program for rehabilitation facilities.

Their grant assistance for this new rehabilitation research and training center is expected to total approximately \$1,100,000, to become available over a period of 4 years, and subject, of course, to the availability of appropriated funds for this purpose.

APPROPRIATION FOR THE FISCAL YEAR 1971

The committee will recall that last year, in making appropriations for the fiscal year 1971, the Congress included an amount of \$1,750,000 in the appropriation for the construction of rehabilitation facilities under section 12 of the Vocational Rehabilitation Act.

We are advised that, of the amount appropriated, \$1,500,000 will be available for the construction project of the Rehabilitation Institute of Chicago.

REQUEST THIS YEAR

Last year we advised the committee that the total construction costs, architectural and equipment, of this project would be about \$23,500,000. Financing costs of \$2,500,000 bring the total project costs to \$26 million. The estimate remains the same.

Of the \$23.5 million, the institute will provide two-thirds, or a little over \$15,666,667. We have projected one-third of this total, or approximately \$7,833,333 as funds to be secured from Federal grants. The institute will provide all of the \$2.5 million financing costs. The summary figures are as follows:

Grant funds (construction planning) section 12, Vocational Rehabilitation Act, fiscal year 1968-----	\$182, 000
Grant funds, section 12, Vocational Rehabilitation Act, fiscal year 1970 -----	2, 000, 000
Grant funds, section 12, Vocational Rehabilitation Act, fiscal year 1971 -----	1, 500, 000
Projected grant assistance, Hill-Burton, over 4 years-----	1, 100, 000
Total actual and pending grant assistance to date-----	4, 782, 000
Request for fiscal year 1972 appropriation, section 12, Vocational Rehabilitation Act-----	3, 051, 333
Projected total Federal share of project (1/3 of \$23,500,000)-----	7, 833, 333

Our request, therefore, for the coming fiscal year 1972 appropriation is in the amount of \$3,051,333, under section 12 of the Vocational Rehabilitation Act, as part of the appropriation for "Rehabilitation Services and Facilities" of the Social and Rehabilitation Service, Department of Health, Education, and Welfare.

HOUSE ACTION

This request was presented to the House Appropriations Subcommittee during its recent hearings. The House committee has not yet reported a bill.

CONCLUSION

Mr. Chairman, the encouragement and support which you and the committee have provided on this project have been largely responsible for the progress so far.

Dr. Betts and I are deeply grateful for what you have done, and we hope that this project, which will have so much meaning for so many disabled people in our section of the country, will have your approval this year for this last and decisive stage.

We submit attachment No. 1 for the record.

(The attachment follows:)

Background on the Institute

The Rehabilitation Institute of Chicago, established in 1954 by the late Dr. Paul Magnuson, is a private, non-profit rehabilitation facility for the intensive restoration of severely disabled men, women and children. It functions as a member unit of the Northwestern University-McGaw Medical Center.

It is housed in a building which formerly was a commercial printing establishment and which was converted to rehabilitation facility use several years ago, with some additions made later.

The inadequacy of the physical plant, both in terms of the limited numbers of disabled people who could be served and also in relation to the limitations placed upon the research and teaching capacity of the facility, was recognized by the Board of Directors several years ago. Some four years ago, active steps were taken to begin planning for the construction of a new and expanded facility which would more adequately meet the research, training and patient care needs for the metropolitan Chicago area, for Illinois and for this region of the Midwest.

The Project

Northwestern University has arranged to provide at no cost on a 99 year lease a suitable plot of land for the construction of the new Rehabilitation Institute of Chicago. It is located adjacent to the medical school and other principal medical facilities of the Center, thereby making possible numerous joint-utilization systems for maximum economy and efficiency in integrating rehabilitation services into the total medical complex. Under the plan, certain floors of the new Institute will be used for medical school teaching purposes in fields directly related to rehabilitation.

The project plans call for a 20-story facility of modern design which will greatly enlarge the capacity of all of the Institute activities and at the same time introduce the most modern efficiencies into the care of patients and into the administrative functioning of the new Institute.

The new Institute will make possible the inpatient care of 152 patients and an additional outpatient load of 125 patients, which is almost 3 times the present capacity of the existing facility. In addition, the new Institute will provide modern and efficient housing for the research of the Institute, as well as greatly expanded teaching of physicians and allied rehabilitation specialists. Two floors will be used for Northwestern's physical therapy school, expanded four times, and the prosthetic-orthotic center, doubled in size.

In 1968 the Institute was designated as a Rehabilitation Research and Training Center by the Social and Rehabilitation Service, Department of HEW. The capabilities of this Research and Training Center, particularly in relation to its regional responsibilities, will be vastly enhanced with the completion of the planned new Institute. A major goal is to encourage and help the establishment of additional rehabilitation centers and departments in other institutions throughout the Midwest.

In developing the concepts and plans for the new Institute, each phase of the work has been carefully coordinated with the numerous local, state and national organizations concerned. These have included, in addition to the professional and management staff of the Institute and the medical faculty of Northwestern University, the following:

- The State Division of Vocational Rehabilitation;
- The Illinois Department of Public Health and the
State Hill-Burton Authority;
- The Hospital Planning Council of Chicago;
- The Chicago Welfare Council;
- A Planning Advisory Committee composed of national
experts in rehabilitation and rehabilitation
facility planning;
- The Regional Office (Region V) of DHEW;
- The Rehabilitation Services Administration and
the Social and Rehabilitation Service of DHEW;
- The State Clearinghouse, Office of the Governor,
State of Illinois;
- The Northeastern Illinois Planning Council;
- Various business, professional and civic organizations
of Chicago and of Illinois and the area.

HISTORY OF CONGRESSIONAL INTEREST AND ACTION

The Congress expressed its interest in this project in 1967 and as a result, the Senate-House conferees in considering the appropriation bill for fiscal 1968, authorized not to exceed \$200,000 for use in construction planning towards such a Midwest Research and Training Center. (Report No. 831, 90th Congress, First Session, page 6,7.)

The following year, the report of the House Committee on Appropriations urged that funds be made available for the next stage in the construction of the Center and that attention be given to expediting the completion of this Center at the earliest feasible date. (Report No. 1575, 90th Congress, Second Session, page 32.) The Senate recorded its accord with this objective. (Congressional Record, Senate, September 6, 1968, page S10396.)

In 1969, acting upon the appropriation request for fiscal 1970, the House Committee included in the appropriation bill \$3.5 million for rehabilitation facility construction purposes and this action was accepted by the Senate. Of this amount, \$2 million was earmarked by the Rehabilitation Services Administration for the project of the Rehabilitation Institute of Chicago.

Last year the Congress added to the appropriation request for fiscal 1971 an amount of \$1,750,000 for construction of rehabilitation facilities under Sec. 12 of the Vocational Rehabilitation Act. Of this, \$1,500,000 is expected to be available for the Institute project.

STATEMENT BY DR. HENRY B. BETTS

Mr. HEYWORTH. Now, I would like to ask Dr. Betts to speak by way of his introduction, for he is not only vice president and medical director of the Institute, but he is also chairman of the Department of Rehabilitation at Northwestern Medical School.

He is project director of our research and training center, and vice president of the American College of Rehabilitation, and he will speak for some of our programs.

Doctor BETTS. Thank you very much. I might just give you a brief background about the Institute, as you doubtless know, we are in the business of rehabilitating the physically handicapped, those most severely handicapped.

We are part of the Northwestern University, and of the medical school, and we are also a research and training center.

The Institute was founded about 1954, and I think the R. & T. Center was founded in 1968.

As you know, Dr. Magnuson started the Institute. He incidentally did it almost entirely with the backing of the private sector. He went to businessmen and laymen in Chicago, and he did enough to pursue this course, and the main impetus was from the medical community, which may not have been a surprise to you.

As you well know, he was a very dynamic man, and he created the original impetus to this, and within the private community initially we developed the Institute to being self-sufficient before we had any Federal grants at all, so we were able to treat our patients fully, and really quite dynamically, before we had any grant, before the R. & T. Center started, and for that we needed research and training.

Anyway, they were very hard years, as they were in most areas of rehabilitation, and eventually it did catch on for various reasons, one, the hospitals are in bad trouble for beds, and I think this is one of the main reasons the medical community backed us, and you can send a patient who has a stroke out of the hospital, into the rehabilitation institute, and free that bed in the hospital.

In addition, I know you heard this morning about the young population, and the deaths among the young, and this afternoon from your distinguished patriot from the State of Washington, about the population that is aging in this country, and now I know that it seems we are all part of the Pepsi generation, and everybody is young and dynamic and vigorous, wherein as you all know, it is a fantasy, and our aging population is much more susceptible to chronic disease, stroke, arthritis, and so on, so there are more people with handicaps as a result of this, and also because of the increased frequency of accidents, as in industry, and because of the heroics physicians take in saving the lives of those in accidents, so that someone now who has an accident—20 years ago he might have died—but now he comes out of his coma, but he has a physical handicap.

The other thing that has caught on is a basic philosophical one, which is the expression of allowing for individual expression, and the handicapped have been hard put upon as a minority group, kept in places, such as homes for the incurable, which is hardly a motivating title for a person to live with, and they were placed in a back room which was not in the mainstream of life, which is hardly in keeping

with what our ancestors had in mind, and I hope we see better things for this minority group, incidentally a minority group to which you do not have to be born, one to which each of us can join unless we drop dead suddenly.

Senator MAGNUSON. Right there, so that we do not get off, and we have a lot of programs for minority groups, but these special centers are for everybody, are they not?

Doctor BETTS. Yes.

Senator MAGNUSON. Within the capabilities of taking care of them?

Doctor BETTS. I do not mean—

Senator MAGNUSON. No, I do not mean you meant it, but sometimes we have a special center for a special group, and this is of wide distribution, because our plan was to have x number, and I forget the exact number, in the major areas of the United States, and they would be all encompassing and all embracing.

No; I did not mean you had any implication there, but this is for everybody with capabilities of taking care of them?

Doctor BETTS. We treat a large number of people who are poor. I just meant the physically handicapped are a minority group.

Senator MAGNUSON. The only minority aspect about them is that they are a handicapped group.

Doctor BETTS. Right.

Now, the greatest interest, I suppose it is the one which I am sure you care about, is for every dollar invested, there is an aid dollar in return in the form of taking people off the welfare rolls.

In any event, the waiting list became considerable, and we were not able to have the beds to take care of all in our community, but in evaluating what our role should be, it appeared, for instance, we treat people from North and South Dakota, and from Indiana and all around.

The ideal way to rehabilitate somebody is as close to his own neighborhood as is possible, as close to his own home.

There should be centers established, and physicians do this in every area of the country, so that under the R. & T. Center umbrella, we felt that we would be able to train this manpower, not just physicians, because there will be a great lag of having enough physicians, and—I meant to say training of physicians, and we do train men in my field, orthopedists, but in addition to that, we have a capability, and we are training people in vocational counseling, physical therapy, in addition to occupational therapy assistance, as well we have working psychologists, social workers, people in therapeutic recreation, and we have a prosthetic school in which we have trained 1,800 people each year to be able to deal better with amputees.

We also have young people come in from the ghettos of Chicago, and from time to time in our R. & T. center, we try to interest them in health careers, and we show them the attractiveness of dealing in this sort of area, so we have that progress.

In respect to funds, Mr. Heyworth is the financier, and he speaks mainly with regard to the buildings, but I would point out in 1961, our revenue was \$417,000 and in 1971, it was \$3 million, and in 1961, in research and training, we had none, and in 1971, \$288,672, and the research incidentally was matched 30 percent.

We paid 30 percent and our board of directors paid 30 percent of that.

In 1961 we paid \$42,000 in free bed services, and in 1971, \$195,579.

I would hope that this progress would seem to justify the commitment that you have been generous enough to make to us, and obviously, we hope you will continue, and feel the progress is worth your support.

Mr. HEYWORTH. I want to say that we are very grateful for the support of this committee in the past.

We have felt we have had a mandate both from Chicago and the Congress to go ahead and design and develop the plans for this new project.

We are practically at a point of going to construction thanks to the help we have had.

We would hope to go out for this this month or in early August and start construction.

Speaking to what Senator Cotton said this morning, this is instant construction rather than delayed construction if it can be kept going.

It is still as we originally reported it, an 18-story building of 170 beds. It contains about half in therapy, and we have two programs at Northwestern University Medical School in our building.

This would grow from 25 to 110 students per year.

Senator MAGNUSON. When you talk about students, what specific thing are you talking about, is it giving work in rehabilitation work? Is this in conjunction with Northwestern?

Mr. HEYWORTH. Yes. They use our facilities as a base for training.

Dr. BETTS. But they affiliate from places all over.

Senator MAGNUSON. You not only have a rehabilitation center physically, and therapeutically, but you are training people who can go out and do some of this work in other places?

Dr. BETTS. Yes.

Senator MAGNUSON. This has been our goal, through all of these appropriations, is more training, more people, so we can deliver better care to more people.

This is the problem in the United States.

Go ahead.

Mr. HEYWORTH. That recommends the institute more.

We have a total projection at the cost of \$26 million, and we have a private goal of \$18.5 million from the private sector. We already have from this \$3.9 million of our own board's; \$1.6 million is from corporations. This adds us to a total of \$8.4 million for the private sector, and then we have our grant which comes up to a total of \$11 million so far, a little more than half.

This will be two-thirds private money and one-third Government, if we can keep talking about the goal of Federal money, of \$7.8 million.

Just to give you an example, the five most sophisticated foundations in Chicago have averaged some \$255,000 each. People like the Chicago Community Trust, Standard Oil, Edison, Sears, each have donated, and to speak of the out-of-State influence, the Kresge Foundation has given us \$500,000. Hill-Burton, Illinois, has been involved in this. I cite this as one of the best examples of cooperation and teamwork between the private sector and the State and Federal Government.

We have wonderful relationships with the State, with the Hill-Burton people, and all of the agencies there. We need to reach the one-third goal, one-third portion of the project, a total of \$7.8 million. Our current need is \$3 million. This we hope would be our final request of this committee, and we make a special plea this year, because since the Vocational Rehabilitation Act expires next June, it is unlikely that the committee will even consider such a request in the future.

I might say in closing that your help, the Government's help, has encouraged and brought forward this private sector support, and, of course, it has encouraged us.

We have been led to believe that you share our dream, that such a leadership facility and training research, as well as patient care could be possible, and it is very much needed throughout the Middle West.

As far as leadership of Dr. Betts, and of course, the support of the university which we have, which is totally dedicated to this project, it will contribute very tremendously to many more communities than just Chicago, and to improve and better distribute more efficient care to many, many people, that is our goal.

That is our story. We appreciate the opportunity of speaking to you.

Senator MAGNUSON. We have a figure, and this is from HEW in 1971, the grants total \$3,590,000 that will be awarded for construction. No new funds are proposed for 1972 under section 12. I mean for construction.

Mr. HEYWORTH. We are hoping the committee will consider putting funds into section 12 and hopefully not just for this one project, but also for other rehabilitation facilities, which of course have not had money in construction for some 2 years, but we are speaking for this project, the \$3 million be added into section 12.

Senator MAGNUSON. Well, now, what money have you received under the Hill-Burton Act?

Mr. HEYWORTH. Officially, only \$279,000, that is 1 year, but they have indicated in the next 3 years that they will in accordance with whatever appropriations they have, that they will hopefully get up to \$1.1 million total.

Senator MAGNUSON. In other words, they have suggested that they might be able to put in over a period of 4 years \$1.1 million?

Mr. HEYWORTH. Right.

Senator MAGNUSON. And last year we included an amount of \$1,750,000 in the appropriation for construction of rehabilitation facilities under section 12, and we are advised that the amount appropriated will be available for construction project of the Institute of Chicago?

Mr. HEYWORTH. Right.

Senator MAGNUSON. I have no further questions.

Senator COTTON. I think, Mr. Chairman, it should be indicated last year Senator Percy was right behind us every minute for this project. If my recollection is correct, the funds were not put in by the full committee. When it reached the floor, Senator Percy was almost distraught because that day he had to be absent on some commitment out of the town, and the chairman and I, we were to represent him. I think we represented him fairly successfully.

Senator PERCY. Yes, you did.

Senator COTTON. But as I recall, while the bill was still open to amendment, just before the third reading, I offered the amendment and the chairman accepted to take it to conference, and it was a million and a half.

Now, my recollection is that we stated on the floor that the Senator from Illinois was seeking \$3 million, but that we thought we would give him a half a loaf this year, meaning last year.

Now, that does not mean that we are committed for this year, but it was an implied commitment that we go half way, that we would consider giving an equal amount this year, and that is my recollection.

Senator MAGNUSON. I recall that is correct.

Senator PERCY. Mr. Chairman, I have two questions. I just would like to know if contact has been made with HEW and the Office of Management and Budget, and why did they not include funds in the request that was sent down to us.

Mr. HEYWORTH. They have been contacted, and they have given strong verbal support, but I think it goes back to what the President's budget does not include any construction money at all.

Senator PERCY. And my last question, you indicated you are still staying right on target, so far as your estimated costs are concerned, considering inflationary pressures that we have had.

If the project is delayed, if you have to stretch it out, is that going to mean that you cannot hold to your cost estimates?

Mr. HEYWORTH. The current escalation of costs is one-quarter of a million dollars per month. That is how bad it is.

Senator PERCY. So we are not just talking about the hundreds of patients who are waiting to be admitted to the Institute, but we are also talking about added costs?

Mr. HEYWORTH. That is correct.

Senator MAGNUSON. Thank you both very much.

LETTER OF DR. VIRGINIA APGAR, THE NATIONAL FOUNDATION

Senator MAGNUSON. Dr. Virginia Apgar, Vice President for Medical Affairs of the National Foundation has written concerning support for the rubella immunization program in which the committee is deeply interested. I will insert Dr. Apgar's letter in the record.

(The letter follows:)

THE NATIONAL FOUNDATION

FRANKLIN D. ROOSEVELT, FOUNDER

1275 MAMARONECK AVENUE, WHITE PLAINS, NEW YORK 10605

914 428-7100

BASIL O'CONNOR
PRESIDENTBIRTH DEFECTS
THE SALK INSTITUTEVIRGINIA APGAR, M.D., M.P.H.
VICE PRESIDENT-MEDICAL AFFAIRS

July 16, 1971

The Honorable Warren G. Magnuson
United States Senate
Washington, D.C. 20510

Dear Senator Magnuson:

May I convey to you and to the entire membership of the Senate Committee on Appropriations our views concerning the question of federal support for the conduct of rubella (German Measles) immunization programs.

On June 30, 1969, shortly after the licensing of the rubella virus vaccine, I testified on this subject before the Senate Committee on Labor and Public Welfare. Some further observations may now be appropriate since your Committee currently is considering, among related matters, that portion of the budget of the Department of Health, Education, and Welfare which provides for the expenditure of \$13.5 million in grants to the states, under section 314E of the Partnership for Health, for the purchase, administration and evaluation of rubella virus vaccine during the fiscal year 1972.

As you may know, the interest of The National Foundation-March of Dimes in immunization extends back to 1938, the year in which this organization was founded by Franklin D. Roosevelt to lead the fight against poliomyelitis, a fight which culminated successfully in the Salk and Sabin vaccines. Since 1958 The National Foundation has been pursuing programs of research, education and service directed toward the prevention and amelioration of birth defects which affect some 250,000 infants in the United States each year. The licensing of the rubella virus vaccine in 1969 represented a major advance in birth defects prevention since maternal infection by that virus early in pregnancy has been a significant cause of such defects.

The last epidemic of rubella, in 1964, caused an estimated 50,000 abnormal pregnancies, consisting of about 30,000 fetal deaths and some 20,000 liveborn infants with serious birth defects. Thousands of the survivors of that epidemic, having reached school age with cataract or glaucoma, severe hearing loss, congenital heart disease, psychomotor retardation, and other

The Honorable Warren G. Magnuson
July 16, 1971

Page 2

defects, now have created an unprecedented demand for special education and rehabilitative services. The incidence of rubella is cyclical; epidemics tend to strike at irregular intervals of six to nine years.

To prevent a recurrence of this tragedy The National Foundation for the past two years has been assisting health departments throughout the country to foster public and professional acceptance of the rubella vaccine. That assistance has included the production and distribution of tens of millions of leaflets and flyers (samples enclosed), the reprinting and circulation of articles for physicians and other health professionals, the provision of volunteer manpower to assist at public clinics, and the organization of meetings and symposia. The National Foundation also initiated a program of cooperation among other voluntary agencies to encourage optimal use of the rubella vaccine.

To a significant degree, these voluntary efforts have enabled the rubella vaccination program to move forward rather impressively. At present, approximately 55 per cent of the "target" population of children aged one to twelve has been vaccinated against the disease. This population group constitutes the principle vehicle for virus circulation and for the infection of pregnant women. While this record of progress constitutes a signal achievement, it probably is not enough to insure against another epidemic of rubella. Our hope is that continued campaigns by public health departments and voluntary agencies will rapidly achieve a sufficiently high level of immunization to suppress dissemination of the virus in the community and thereby eliminate congenital rubella as a public health problem.

It is my view, however, that a much more intensive effort will be required to achieve that goal because preschool children constitute the bulk of the unvaccinated, susceptible population. It is, of course, much more difficult to reach preschool children than school-age children in immunization programs because the former are not "captive" and consequently often need to be vaccinated outside of organized settings. The National Foundation is determined to redouble its activities to cope with this problem.

In view of the potential difficulties, however, I am especially concerned that federal support for rubella vaccination programs be maintained at a level sufficient to insure swift completion of those programs before the onset of the next rubella epidemic. Accordingly, I appeal to the Committee to approve at the very least the \$13.5 million requested for this program. I would not urge this action on the Committee unless I felt sure that The National Foundation and its volunteers throughout the nation would rally to assist public health departments in this most critical phase of the rubella vaccination program. Adequate federal funding will enable this partnership of government with the voluntary sector to go forward toward the elimination of congenital rubella as a threat to unborn babies.

Sincerely yours,

Virginia Apgar
Virginia Apgar, M.D., M.P.H.

LETTER OF DR. JAY A. NADEL, SCHOOL OF MEDICINE, UNIVERSITY OF
CALIFORNIA

Senator MAGNUSON. Also, for the record, is a letter from Dr. Jay A. Nadel of the University of California containing pertinent information regarding NIH training grants.

(The letter follows:)

UNIVERSITY OF CALIFORNIA,
SAN FRANCISCO MEDICAL CENTER

BERKELEY · DAVIS · IRVINE · LOS ANGELES · RIVERSIDE · SAN DIEGO · SAN FRANCISCO



SANTA BARBARA · SANTA CRUZ

SCHOOL OF MEDICINE
CARDIOVASCULAR RESEARCH INSTITUTE

SAN FRANCISCO, CALIFORNIA 94122

April 2, 1971

The Honorable Warren G. Magnuson
Chairman,
Subcommittee on Appropriations for Labor and
Welfare
The United States Senate
Washington, D.C.

Dear Mr. Magnuson:

I am writing to you to appeal to you to prevent the deletion of the \$23 million from the National Institutes of Health Training Grants which is part of the 1971-72 budget, since I realize that this deletion requires the approval of the House of Representatives and the Senate. The reason for my appeal is as follows:

In 1969, the Administration suggested that stipends for Trainee supported by National Institutes of Health Training Grants be replaced by loans. Because of the serious effect this might have on the personnel, Mr. Robert Finch stated in a memorandum to President Nixon (December 19, 1969), "I don't want to make this serious a move without more information that we now have" and he recommended "that we continue the present training programs for the time being and immediately begin a study to find answers". The Administration then requested the NIH to make an intensive study of its training programs, their need, and various methods of funding them. This review which has been undertaken by the Bureau of Social Sciences Research is scheduled for completion in late summer of 1971. In spite of these recommendations, President Nixon then submitted his 1972 budget to Congress and deleted almost \$23 million from the NIH budgets for the present training programs. Thus, the budget has deleted funds from the training programs at the same time a review is being undertaken by the government! The purpose of this shift in funds is unclear, but some individuals have suggested that the funds will be shunted back to the deans of medical schools to give "maximum flexibility". The exact purposes of the \$23 million deletion is not clear, but no change should be allowed until the review by the Bureau of Social Sciences Research is completed in the summer of 1971. Furthermore, I believe that it would be a tragic mistake to have the funds for training programs at a local level. The National Institutes of Health peer review program has been outstanding over a 23-year period, and I am sure that the Administrators

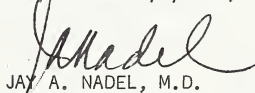
The Honorable Warren G. Magnuson

of a 100 medical schools working separately cannot provide the same quality of judgments as the peer review system.

If the deans of our medical schools need funds to strengthen weak programs in their schools, should these funds come from a separate appropriation of new money, or be taken from training programs now supported by the NIH? I believe that removing more and more funds from the peer review system will result in overall mediocrity throughout the country, with fewer and fewer centers of excellence for the training of the faculty and biomedical research personnel. This then will lead to poorer teaching in medicine, and will not accomplish our national goals. I do believe that some of our medical schools need funds to strengthen their weak programs, but I think that serious consideration should be given before these critical decisions are made. Furthermore, I do not believe that they should be taken from good well received programs such as the training programs of the National Institutes of Health. These National Institutes of Health training programs have funded the training of faculty members of the medical schools throughout the United States, and are key to continued excellence of our faculties in medical schools.

For all of these reasons, I implore you not to approve the recommended \$23 million deletion from the NIH Training Grants of the 1971-72 budget. If you disagree with my opinion, I would be grateful for information concerning your reasons.

Very sincerely yours,



JAY A. NADEL, M.D.

Professor of Medicine & Radiology

JAN: jah

STATEMENT OF DR. LUTHER L. TERRY, VICE PRESIDENT OF MEDICAL AFFAIRS AT THE UNIVERSITY OF PENNSYLVANIA

NATIONAL LIBRARY OF MEDICINE

Senator MAGNUSON. We will hear from Dr. Luther L. Terry, former Surgeon General of the Public Health Service. Glad to see you, Luther.

Dr. TERRY. Thank you very much, Mr. Chairman, members of the committee.

I am Dr. Luther Terry, vice president of medical affairs at the University of Pennsylvania.

I realize that the subject matter which I am discussing with you today is a relatively small item in terms of the HEW budget; nevertheless, it is one that I think needs considerable attention in terms of our medical communication and dissemination of knowledge; therefore, I would like to speak to the appropriation for the National Library of Medicine.

I wish to thank you for this opportunity to appear before you today in order to bring to your attention the needs of the National Library of Medicine.

You may recall that when I was Surgeon General of the Public Health Service, I not only served as an ex-officio member of the Board of Regents of the National Library of Medicine, but it was during my term that the Medical Library Assistance Act was passed in 1965.

After leaving office, I served a 4-year term on the advisory committee to the National Library of Medicine, which had the responsibility for reviewing applicants for regional medical libraries and for resource grants.

In addition, I am on the advisory committee of the mideastern regional medical library, and have been deeply involved in improving our biomedical libraries at the University of Pennsylvania.

It is for these reasons that I have a deep and continuing interest in our medical library system, and it is in this regard that I wish to speak to you today.

I have studied the President's request for funds for fiscal year 1972 for the National Library of Medicine, and I can state without any reservations whatsoever that this represents a totally inadequate sum.

As you know, there has been no significant change in the budget for the National Library of Medicine for several years, not even a cost-of-living increase. If we compare the actual 1971 appropriation with that being requested for 1972, we find an increase of approximately 2 percent.

My knowledge of the National Library of Medicine and its programs permits me to state that an increase of between \$3 and \$4 million is absolutely necessary if the National Library of Medicine is to play the significant role that it must in contributing to the health of this country.

The communication of up-to-date information to physicians and other health workers is an essential ingredient in improving health care.

These programs benefit the people of this country by providing health professionals access to medical knowledge. Research breakthroughs are meaningless to the average citizen unless this new knowledge becomes a part of the health delivery system.

I would also like you to keep in mind that if a research effort is to be greatly increased, as is being proposed for cancer, more communication is necessary.

This means that the information available in libraries is used more, and the new information resulting from the increased research effort also must be communicated.

Similarly, Congress is encouraging the increased training of physicians, dentists, nurses, and other health personnel.

This, too, places an increased burden upon the medicine libraries.

As I have already indicated, an across-the-board increase of \$3 to \$4 million is needed by the National Library of Medicine.

Time does not permit me to discuss each operation of the library; therefore, I shall limit my remarks to the extramural programs.

For the extramural programs of the National Library of Medicine, the President has requested approximately \$6 million for fiscal year 1972. This is approximately the same amount as was appropriated in 1971.

The actual difference is a truly insignificant \$100,000. In 1972, in my opinion, the National Library of Medicine extramural programs require an increase of at least \$1 million; and, if we are to be realistic, these programs really need an increase of about \$2 million.

I will attempt to summarize my position and leave with you a document which goes into more detail.

The magnitude of the job can be understood by the incredible fact that scientists in all fields are now generating knowledge that is published in approximately 60,000 journals of which 19,100 are related to medicine.

Clearly, no one can cope with anywhere near that mountain of publications.

We must attempt to solve the problem of delivering the right information to the people who need it.

Six specific assistance programs are authorized under the Medical Library Assistance Act of 1965 and the 3-year Extension Act of 1970.

These are resources, research, training, publications, regional medical libraries, and special scientific projects.

I would like to provide a brief explanation of each and to stress the importance of the programs which these increased funds would support.

Again, I urge you to remember that while I speak of training librarians or supporting library resources or regional libraries, I am really describing the support mechanisms.

What I am requesting is that you provide adequate support so that we can improve the current methods of transferring information, and at the same time develop new and better methods.

The extramural programs attempt to strengthen and improve the current institutions by providing medical information through two separate but closely related programs: regional medical libraries and library resource grants.

In terms of our national system, we concede our medical library system as being a triangle; or if you wish to have a third dimension, at which we have the base of the community libraries, where they are in the hospitals, and other such institutions, medical institutions; and then we have the regional medical library, of which there are 10 lo-

cated throughout the United States; and then at the same time there is the National Library of Medicine.

The National Library of Medicine is located in Bethesda, and it serves a very important role, but I think it is obvious it cannot serve the country from that one installation.

Now, the two programs of NLM strive to provide the current informational needs of all healthworkers in the Nation.

We can think of the Nation's health information resources as a triangle—at the base are the hospital libraries and similar libraries which are the primary resource for the healthworker. (These libraries are supported by resource grants.)

Above this base are the regional medical libraries providing backup support to individuals and institutions within the geographic area.

Finally, there is the National Library of Medicine which provides service to the entire Nation.

The National Library of Medicine surpasses all other existing medical libraries in the world. It is without question the most complete source of information on medical and health knowledge, but this library is in the Washington area.

The mechanism that actually brings the resources of the National Library of Medicine to the entire country is the regional network. This network includes the National Library of Medicine and the following 10 regional libraries: New England region, Boston; New York region, New York; Mideastern region, Philadelphia; east-central region, Detroit; Southeastern region, Atlanta; Midwest region, Chicago; midcontinental region, Omaha; south-central region, Dallas; Pacific Northwest region, Seattle; Pacific Southwest region, Los Angeles.

Each of the regions is interconnected, and all are connected to the National Library of Medicine.

Doctors and health professionals throughout the Nation have access to this national collection as well as to the services and resources of the regional medical libraries located geographically nearest to them.

A single request for a periodical or a book on interlibrary loan may cost up to \$3 to process. A more complicated request for a computer search of the relevant literature may cost the library \$50.

These modern library services give the busy physicians quick and easy access to the information needed.

May I give you an idea of the extensive use of the medical literature analysis and retrieval system (Medlars) demand search?

There were 20,000 searches provided last year. One of our objectives is the ability to handle the expanding number of requests, either by Medlars or by AIM-TWX. (A search of the abridged index medicus activated by teletype terminals connected to the telephone network.)

For this, we must have adequate funding for a larger number of Medlars orientation programs that would reach research scientists, physicians, and allied health workers in every geographic area.

The regional medical libraries must also provide orientation seminars for both the professional and nonprofessional librarians in small community hospitals and university medical schools across this country.

It will be the librarians in many instances who will provide the doctor with accessibility to library techniques such as Medlars, AIM-TWX, Dial Access, and other systems.

In my opinion, the \$2 million being requested for this program in 1972 should be increased to approximately \$2.5 million.

As I mentioned earlier, the resource grants program is also intended to provide health science information to the health worker.

The purpose of the resource grant is to provide assistance to all public and private nonprofit health care institutions, from the smallest community hospital to the largest ones.

The librarian usually has the responsibility to maintain, collect, and disseminate this information no matter how small the library may be.

Thus, these resource grants frequently provide a small core library, shelves for books and periodicals, and personnel to run the library.

Resource grant funds are also used to stimulate a service program that will reach out to the more remote areas of the country by providing training for persons within the hospital who are responsible for maintaining the library.

Many times, out of necessity, this is the health records clerk of the hospital, whose only knowledge and training in librarianship comes as a result of such orientation programs usually sponsored by the regional medical library.

Making such services available to health personnel in these smaller hospitals is a goal that must be realized. If funds for resource grants are not available, these services cannot be provided.

We must have an increased appropriation if this growing demand is to be met. Over the past several years, there have been hundreds of grant requests which were approved but not funded.

The National Library of Medicine and the regional medical library network do not dare stimulate any more applications for these grants even though there are thousands of small hospitals throughout the country that need library assistance desperately.

Again, instead of about \$2 million for this program, \$2.5 or even \$3 million could be well used.

Research and development projects are another activity of the extramural programs.

The funds are used for the development of new techniques and systems for information storage and retrieval. There are three parts to this research program.

The first involves library services; the second biomedical communications; and the third, the history of medicine and life sciences.

This program has only \$600,000 requested for 1972. Another \$100,000, at least, is needed.

Another aspect of the research program is the publication program.

Publications supported by the program are of high scientific merit and of such specialized subject matter that they cannot be financed by commercial publishers.

Support is provided for preparation and publication of abstracts, bibliographies, handbooks, critical reviews, monographs and translations for health scientists, educators, and practitioners.

Examples of funded projects include reviews of recent research on environmental health and substances toxic to man; assistance for a

new periodical to provide needed information on nutrition education to fieldworkers in areas of malnutrition, the development of a manual of community medicine for use by physicians in remote or relatively underdeveloped regions, and experimental or innovative publications to improve and promote self-instruction by medical students.

Current trends indicate continued and increased need for the publications supported under this program.

There is a particular need to assist in the publication of reviews and abstracts and new knowledge of health and disease, especially transplantation, anticancer drugs, mental health, and biomedical communications.

About \$300,000 is requested for publications, another \$150,000, in my opinion, should be added.

Finally, the extramural programs provide for the training of librarians and other information specialists. The training programs are essential for the modern librarian who must use computers, high speed telecommunications, MEDLARS, dial access, and other methods.

Only with these tools and expert training can the librarian provide the doctor with the information that he needs.

Today the term "medical librarian" or "information specialist" assumes modern technological skills well beyond these persons trained in the traditional uses of a card catalog or a decimal system for the indexing of books.

The modern library requires highly sophisticated specialists who know the medical terminology as well as the science of information exchange.

Such specialists facilitate the flow of knowledge from the research scientists to the physicians and speed its ultimate use in the treatment of the patient.

To train such specialists in adequate numbers requires an increase in 1972 of at least \$200,000.

In summary, the quality of health care is proportional to knowledge of the physician and other health workers, and this knowledge must be continually updated and improved.

That is the function of the National Library of Medicine.

The Library, as I have attempted to show, needs an adequate budget in order to continue the excellent work for which it has justly become known.

Mr. Chairman, I enclose a table of Minimal Request of Appropriations and Budget Deficiencies of the National Library of Medicine.

I request it be placed in the record at this point.

Senator MAGNUSON. Without objection, so ordered.

(The table follows:)

MINIMAL REQUEST, APPROPRIATIONS AND BUDGET DEFICIENCIES—NATIONAL LIBRARY OF MEDICINE

Activity	Fiscal year 1971 appropriation	Fiscal year 1972 President's budget	Fiscal year 1972 minimal requirements		Fiscal year 1972 optimal requirements	
			Amount	Increase	Amount	Increase
Extramural programs (medical library assistance):						
Training.....	\$1,000,000	\$1,000,000	\$1,200,000	\$200,000	\$1,200,000	\$200,000
Special scientific projects.....	5,000	95,000	95,000		95,000	
Research.....	590,000	600,000	650,000	50,000	750,000	150,000
Library resources.....	2,205,000	2,105,000	2,505,000	400,000	3,000,000	895,000
Regional medical libraries.....	1,912,000	2,002,000	2,102,000	100,000	2,500,000	498,000
Publications support.....	280,000	290,000	340,000	50,000	500,000	210,000
Subtotal.....	5,992,000	6,092,000	6,892,000	800,000	8,045,000	1,953,000
Intramural programs (direct operations):						
Lister Hill National Center for Biomedical Communications.....	1,370,000	1,398,000	1,898,000	500,000	1,898,000	500,000
National Medical Audiovisual Center.....	2,023,000	2,127,000	2,237,000	200,000	2,327,000	200,000
Library operations.....	8,016,000	8,125,000	8,425,000	300,000	8,425,000	300,000
Toxicology information.....	1,237,000	1,237,000	1,437,000	200,000	1,737,000	500,000
Review and approval of grants.....	665,000	704,000	704,000		704,000	
Program direction.....	2,133,000	2,298,000	2,298,000		2,298,000	
Subtotal.....	15,444,000	15,889,000	17,089,000	1,200,000	17,389,000	1,500,000
Total.....	21,436,000	21,981,000	23,981,000	2,000,000	25,434,000	3,453,000

REGIONAL MEDICAL LIBRARIES

Mr. Chairman, the table outlines the appropriation for 1971, and the President's budget for 1972, the minimal requirements for 1972, and then the optimal requirements.

Senator MAGNUSON. Where are the regional medical libraries located?

Doctor TERRY. In some of these areas, they are located in medical schools and other areas, they are located in organizations like the College of Physicians in Philadelphia, and they are doing a great job, and they are the system into which the smaller libraries, individual libraries feed and get the information without going all the way to the National Library of Medicine, unless one has to.

They are also interconnecting, and I think one of the things that is distressing us is in terms of the funds available, and the programs that have been developed, even with the very small increase recommended in the President's budget.

Actually it will result in a cutback in the services of the regional medical libraries for next year if the amount recommended by the administration is appropriated, and then I would like to mention, Mr. Chairman, that funds are needed for all of these programs outlined in the table, it is extremely valuable to have all of these sort of resources so that these very highly technical publications are available. There are publications that could not get published which could be made available to our community.

Senator MAGNUSON. At one time, I do not know whether you were down there, but at one time we had some problem with getting any money at all for translations.

Is that in this program now?

Doctor TERRY. I believe it is, and I would like to point this out, Mr. Chairman, I have restricted my comments to the extramural program.

Admittedly, intramural program, it is very important, and we cannot have any substantive extramural program without the intramural program, and without a good intramural program, and I have certainly endorsed the thing set down, but since these matters have been discussed by the staff of the library, and in such detail, with the committees of the Congress, and I did not dwell on that, but I would certainly support these increases as indicated here.

I would like to say in that respect, Mr. Chairman, in arriving at my recommendations, I have consulted with the staff, the National Library of Medicine, with our regional medical libraries, and with several of our friends, involved in medical library systems in other areas of the country, and on the basis of my basic general knowledge of the subject, and the information that I have been able to get from these sources, I have arrived at these recommendations, which I take full responsibility for, but I think they are rational and reasonable.

Senator COTTON. I sat on this committee long years with Senator Lister Hill, and if he were here, he would be endorsing your recommendations.

Dr. TERRY. I do not think there is any doubt about that.

He was extremely wise in terms of this whole area, and he gave strong support in the area of medical information and of medical communication.

In addition to that, I do not think I would make such a proposal if Senator Hill were here without checking it out with him first.

Senator COTTON. He would probably say it was not enough.

We thank you.

Dr. TERRY. Thank you very much.

I appreciate the opportunity to appear before you today, Mr. Chairman.

Senator COTTON. Thank you very much for your appearance.

STATEMENT OF DR. EDWARD W. LOWMAN, AMERICAN CONGRESS OF REHABILITATION MEDICINE

REHABILITATION OF THE DISABLED

Senator COTTON. We will now hear from Dr. Edward W. Lowman of the American Congress of Rehabilitation Medicine.

Dr. LOWMAN. Thank you very much, Mr. Chairman.

First let me express my appreciation for the privilege of appearing before your committee today.

I am Dr. Edward W. Lowman, clinical director of the Institute of Rehabilitation Medicine and professor of rehabilitation medicine at the New York University School of Medicine.

My testimony today is on behalf of the American Congress of Rehabilitation Medicine, of which I am a past president.

I am here to offer the views of our organization on several critically important items in this year's budget for the social and rehabilitation service of the Department of Health, Education, and Welfare.

The American Congress of Rehabilitation Medicine was, for many years, primarily an organization of physicians specializing in physical medicine and rehabilitation.

In the last few years, the American Congress of Rehabilitation Medicine has changed its structure, its membership and its broad objectives, so that it now is a multidisciplinary organization whose members come from the many professions which make up the rehabilitation team in the care of disabled patients.

In the medical rehabilitation field, the scientific body is the American Academy of Physical Medicine and Rehabilitation, composed of physicians who are board certified members of the specialty of physical medicine and rehabilitation.

It has been the privilege of the American Congress of Rehabilitation Medicine to be a part of the growth of rehabilitation work for the disabled in this country for nearly 50 years.

We will observe the 50th anniversary of the organization in 1973. We have been actively involved in the marked advances that have taken place in the last 15 years.

A major element in those advances has been the work of the Congress and of this subcommittee in particular, which has given an excellent demonstration of public and voluntary cooperation by the Federal Government, the States, and the private programs and facilities in rehabilitation.

As a result, there has been a remarkable increase in the numbers of disabled people restored to activity and employment in recent years.

In addition, because of research gains, we are able today to rehabilitate large numbers of severely disabled people for whom we could offer little or nothing 20 years ago.

One of the major reasons why rehabilitation programs have grown in both size and effectiveness is the fact that the Federal Government, starting some 15 years ago, very wisely created by law the five essential elements for healthy advancement of such programs in both the public and private sectors.

In doing this, they gave to the Federal rehabilitation agency, and those who cooperate with the agency, the basic tools that must be working together in unison to make such a national effort succeed.

These five elements, which I wish to discuss with you in terms of the appropriations for the coming year, are: Services to the disabled, research, professional training, construction of facilities, and special effort projects.

SERVICES TO THE DISABLED

The Federal-State program of vocational rehabilitation is one of the vital links in this country's effort to restore disabled people. The State agencies secure from our members and their programs and institutions a large volume of specialized services for the disabled.

We have been disappointed to see the funds for the basic program held to token increases in the budget for the coming year.

The small increase for the coming year probably will mean an actual decrease in the amount of services they can provide. We hope the committee will favorably consider a larger amount.

RESEARCH

The reductions proposed in rehabilitation research are a matter of real concern to us. A substantial amount of the research presently underway, and planned for the near future, is conducted by members of the American Congress of Rehabilitation Medicine. Much of the literature providing new knowledge and new procedures in restoring the disabled reflects the work done in projects supported by the research program of the Social and Rehabilitation Service.

The reduction of \$1,692,000 proposed for the research project grant program probably will mean that no new starts will be made, or extremely few.

There are very promising young research people being attracted into the rehabilitation field these days and in many ways they represent the future of advanced rehabilitation work for the disabled. We cannot keep them if the prospects of support for their investigations are dim.

The budget for the special rehabilitation research and training centers has been held to about the same reduced level as before. Normal increases in operating costs are steadily reducing the capabilities of these special centers.

Of the 11 medical R. & T. centers, with which we are most familiar, most have not yet reached the point of full development which was envisioned for them when they were established.

These centers represent one of our greatest opportunities to achieve major gains in new scientific knowledge, and in working out new methods of using trained teams of experts to master the problems of the severely disabled patient.

They are the only units we have in which the full resources of major medical centers are brought into the research effort in exploring new approaches to disability.

The teaching program of these centers also would be adversely affected by such a reduction.

Mr. Chairman, the American Congress of Rehabilitation Medicine urges that the committee approve at least \$15 million for these centers, and that you give serious consideration to a planned program of increases which will permit these research programs to expand and thus give us a constant flow of new information to use with our disabled patients.

PROFESSIONAL TRAINING

It is difficult to convey to the committee the damage that will result if the proposal to reduce the funds for training rehabilitation personnel is accepted by the committee.

Frankly, the prospect of a 47-percent cut in these funds, from the present level of \$27.7 million to a little over \$13 million, is enough to thoroughly discourage the entire rehabilitation effort in this country.

The membership of the American Congress of Rehabilitation Medicine includes most of the professional and technical people that are represented in this training program.

We think we are reasonably expert in terms of the need for trained people in the hospital rehabilitation departments, the rehabilitation centers, the special facilities, and the programs where our members work each day.

Mr. Chairman, we already are faced with shortages of people.

We need more of them, not less, just to meet today's situations. This training program has been the salvation of the rehabilitation effort in this country during the past 10 or 15 years; it has made possible the growth of rehabilitation programs to meet the sharply rising needs. When the training program started in 1955, there were only 55 residencies available in physical medicine and rehabilitation.

Last year there were 561. In 1960 we had only 428 board certified specialists in physical medicine and rehabilitation. Now there are more than 850.

In every other one of the rehabilitation professions—in occupational therapy, physical therapy, speech and hearing, prosthetics and orthotics, in rehabilitation nursing and many others—the same results have occurred, and the major reason for this growth has been the federally supported training program.

There is no other provision for assistance in this training.

For example, the SRS training program is the sole source of Federal support to help train resident physicians in physical medicine and rehabilitation.

It is the only support available to provide undergraduate instruction in the principles of rehabilitation for medical students.

I want to express, as strongly as I can, the importance of the committee's decision on funds for this training program.

The immediate effect of such a reduction will be chaos in many of the schools which now are our only source of trained manpower for the rehabilitation professions and technical staffs.

It will mean no new students to begin their training this fall—and if that happens, there will never be a way to make up for the people lost. It will seriously jeopardize completion of training for students already in school.

In a longer view, the proposed reduction raises a basic question as to the Government's intention in the coming years.

If the training program is to be closed out, will other forms of Federal assistance in rehabilitation be closed out too?

Mr. Chairman, I earnestly ask the committee to restore the training funds to the 1971 level.

CONSTRUCTION OF FACILITIES

In the last few years the Federal funds for construction of rehabilitation centers, workshops and special facilities have been extremely small.

The program under Hill-Burton, which has a special category for rehabilitation facilities, has been most helpful, yet the amount of funds in any State has remained so low that construction of any size has been beyond the reach of that program.

Back in 1965 the Congress authorized a construction program under the Vocational Rehabilitation Act.

Each year it has been funded at only a fraction of the amounts authorized. While there may have been a need at one time to discourage all construction as an anti-inflationary measure, it seems to us that such a period is past and that dozens of delayed construction projects that are urgently needed by rehabilitation organizations across the country should be assisted in the 1972 appropriation.

SPECIAL EFFORT PROJECTS

There always is a need for special types of project grants which enable the Federal agency to move against special problems in the rehabilitation field.

The act makes provision for several such programs. These encourage both public and private agencies to cooperate with the Federal Government in launching coordinated programs of new services, or reaching groups of disabled people that have had little or no service in the past.

The American Congress of Rehabilitation Medicine hopes that the committee will give its approval to funds for as many of these special effort project programs as possible.

Comment: It has been our experience that the rehabilitation programs of this country have rendered one of the most valuable services the country enjoys.

The concept of helping those who are in the most difficult circumstances, who face complex problems not encountered by most people, who are disadvantaged in often-overwhelming ways, has been at the heart of the rehabilitation philosophy for more than 50 years.

The vast majority of us in rehabilitation today are giving particular attention to the problems of disability among minority groups, among the poor, and among the disadvantaged generally.

Studies have shown quite clearly that among the poor, disability is far more prevalent than among the population generally.

There is a great need, therefore, to make sure we have the resources to do what obviously must be done to restore more disabled disadvantaged people to active lives.

The methods, the personnel, the facilities, the costs are the same as are required for dealing with disability in any group.

There are no shortcuts in rehabilitating them, any more than there are among any of our people.

They, like disabled people everywhere, deserve this chance to become interested, active parts of their communities and to live their lives as working, self-sufficient men and women.

This, Mr. Chairman, is what we are trying to do—and this is why we are asking you to approve the funds needed to make sure this work does not get lost in the shuffle of the many pressing problems which you and the committee must consider.

Senator COTTON. The New York University Center not only treats patients, but it trains personnel for treating patients?

Dr. LOWMAN. Yes.

Senator COTTON. And it also acts as a forum for consideration of improvements?

Dr. LOWMAN. Yes, sir; that is correct. I have gotten into that in my statement, Senator.

Now, Mr. Chairman, I would like to mention that I have been in the field of rehabilitation medicine since 1943, when I was in the Navy, so I have seen it grow.

When the board was established in 1947, we had no specializations at that time and no training programs in rehabilitation medicine. The teaching programs, for example, have spread to more than 60 medical schools for undergraduates, and many of them for post-graduate training physicians.

There were like 55 openings for residents to go into training in 1955, and today as a result of these programs within medical schools, and in these centers, there are over 500 openings for physicians in residency training.

The service programs have also increased through the years.

To get to specifics, we are quite disturbed at the budget that is currently proposed for SRS, and this is what I am speaking to today, of HEW, the amount of money appropriated for services for patients, to pay for the rehabilitation of the disabled, so they can get back to a productive life, and become taxpayers again, it is a proposal of \$15 million, and this will not even take care of present needs, and in my opinion, it will really represent a decrease in services.

In New York State last year we ran out of money and for 2 months we had a moratorium on service to vocational rehabilitation clients.

This year from May 15 to July 1, there were no funds, so if you broke your neck, or had a stroke, during the 6 weeks, you had to sit around and wait, until some more money became available July 1 in order to receive services.

The spiraling costs of hospital care, obviously to everyone it is well known. I do not know where it ends.

Rehabilitation services are considerably cheaper than general hospital care, and at the University Hospital at New York University, the average cost is \$188 a day, whereas at the Institute, rehabilitation is \$125 a day, but this \$125 represents a 13-percent increase over the last year, and the 13-percent increase is all in salaries, and 79 percent of our budget is in salaries, and when the organized labor organization people go out on strike and empty the hospital out, and you settle, and you settle for 68-percent increase, this ends up 13 percent in your cost, so when you are talking about an increase for funds for services to the disabled, it really is not shortchanging the disabled in my opinion.

The other item which concerns me deeply is the research line item, research and demonstration.

It is reduced by something over a million dollars from its present level, which is inadequate, and I think when we are talking about research, we should really look at it with some sort of the perspective that the field of rehabilitation medicine is so tremendously broad and with the disciplines that are involved, that the need for research is very broad, and when you talk about \$23 million, you are talking about money that will be divided up for research within something like 10 categories, which I will not list here, so there is really very little money for research in medical rehabilitation problems.

Unless we can improve the delivery of medical care as related to rehabilitation, we are not going to shorten or improve the kind of result we will get.

There has been no allocation of funds for new research since May of 1970, so that new research has lain aside since that time.

We at New York University are very fortunate in that we have some research funds which I will talk about shortly, but we also have factors, such as a generous endowment from a gentleman which has made it possible for us to have some leeway in order to carry on our research. As a matter of fact, it is in excess of 30 percent of our total research budget, but others across the country are not so fortunate, and there are many good research projects in the field of medical rehabilitation which cannot be activated for the lack for funds.

I would think at least this \$23 million figure ought to be \$30 million, \$31 million, to give us broader leeway.

There are many things we know very little about, and we do need this research. We know practically nothing about cerebral circulation. If you have a stroke there must be some way that you can save some tissue, at least a gray zone of tissue, which is not completely destroyed, but which has some propensity for recuperating. We have proof techniques only for measuring circulatory cerebral circulation, so you have no *modus operandi* for determining that.

We have had that research fund through a foundation in memory of a former patient, who was a patient at the Institute with a stroke, but, again, across the country, this is not true, and there is a crying need for research in these areas, and I might say, that research has paid off in the research and training area.

Our policy with research and training with the research funds involved in the research and training grant has been to use it as seed money, to try to get a project going, and see whether it had merit, and then try to sell this to a foundation, to an individual, or to one of the NIH groups, to then pick it up as a full-blown ongoing project, and then turn moneys over to another project, to get this seeded and evaluated.

Senator COTTON. What is the RT area?

Dr. LOWMAN. Research and training.

Now, an example of this has been the use of oxygen in the treatment of ulcers. This has proven most effective, and it is not a clinical practice, and the instrumentation being used in any hospital across the country in the area of training, when we look at the 47-percent cut in training funds, it is just really incredible.

This stretches across the board, and you must see this in perspective.

It starts with the medical schools, and the teaching within medical schools has resulted in this great growth in the number of residencies available for training of physicians, and I wish you could see what was going on at the Institute right now at New York University.

We have one group of under-privileged children, many of them handicapped, but not necessarily selected because of their handicap, high school children, spending 8 weeks, as Dr. Betts said in his area, to expose them to health careers, hoping they would go into a health career.

We have a second group of college students who will go on in college, but hopefully on in a higher bracket of health career, such as a graduate nurse, or physical therapist or one of the established independent professional groups.

We have a group of medical students spending 8 weeks in rehabilitation, getting exposure, seeing what can be done in rehabilitation medicine, hopefully, to get them interested in going into a specialty, and this at least gives them some background knowledge so they will know how to handle that patient when they are out in practice.

We have 54 physicians in training, and I should say that since the establishment of the research and training programs, which NYU was the first in research and teaching programs, 20 percent of the psychiatrists have specialized in the field of rehabilitation in this country were trained at NYU.

Of the foreign physicians trained in this country, and there are great numbers of these, as you know, they are staying in this country now because of the change of immigration laws and statutes, 50 percent are trained at this university, and after a broad-training program, they stay in this country to work, so that when you talk about training, you are talking about a very broad area of commitment, and it reaches to the physical therapy school, the occupational therapist, and so on, and there are some 300 institutions across the country involved in some of these programs, so that is why I say we should be seeing a \$10 million increase in training funds which is what actually could be used profitably.

We also have to realize that this field is very young, and although having grown, it is still too short of personnel.

There are only 700 physicians in this country who have been certified, and there are another 600 internists, orthopedics, who are doing rehabilitation, but have their own specialties, so we have 1,300 physicians alone, and it was anticipated by the Joint Commission on Education that we would need 3,500 podiatrists alone by 1972, and 7,500 by 1975, and this relative shortage applies across the board in all of the various elements which are needed in this rehabilitation process.

Finally, we were really strained in delivery of services, prior to medicare and medicaid, but now that medicare and medicaid is available for most of the population beyond 65, it is impossible, and now everyone is talking of health insurance for everyone, and I can tell you, we will not by any means be able to deliver rehabilitation services, and under that type of umbrella coverage, unless trainees are increased, it will be economical folly to provide these people services which you cannot deliver, or which will be delivered in such poor quality, that your investment will be a very poor one.

Finally, to support Dr. Betts on construction, there is need for construction. I know that the economy has been tight, but, again, you have to have the facilities to deliver services as well as the people to deliver the services, and there is need for construction in most areas of the country.

I appreciate very much the opportunity to talk to you.

Senator MAGNUSON. I have no questions.

Thank you very much.

STATEMENT OF DR. ABRAHAM B. BERGMAN, DIRECTOR OF OUTPATIENT SERVICES AT CHILDREN'S ORTHOPEDIC HOSPITAL AND MEDICAL CENTER, AND ASSOCIATE PROFESSOR OF PEDIATRICS AND HEALTH SERVICES AT THE UNIVERSITY OF WASHINGTON IN SEATTLE

ACCIDENT PREVENTION AND EMERGENCY HEALTH SERVICES

Senator MAGNUSON. We will now hear from Dr. Abraham B. Bergman, director of Outpatient Services at Childrens Orthopedic Hospital and Medical Center, and associate professor of pediatrics and health services at the University of Washington in Seattle.

Dr. BERGMAN. Thank you very much, Mr. Chairman.

My name is Abraham B. Bergman. I am a physician specializing in the care of children. I am director of Outpatient Services at Children's

Orthopedic Hospital and Medical Center and associate professor of pediatrics and health services at the University of Washington in Seattle.

I am also a member of the Injury Control Advisory Committee of the Department of Health, Education, and Welfare, a body that has not met since September of 1969.

I am appearing before this subcommittee for the third year in a row to draw your attention to a problem that has been tragically neglected by the Department of Health, Education, and Welfare. Namely, accident prevention and provision of emergency health services in the United States.

SCOPE OF THE PROBLEM

Accidental injuries account for approximately 105,000 deaths per year in the United States.

Throughout school, early work years, and early days of marriage, a person in the United States is more likely to die from an accident than from any other cause, and throughout life as a whole, accidents are outranked as a cause of death only by the cardiovascular diseases and by cancer.

One person in four in the United States annually suffers an injury of sufficient severity to require medical care or to cause at least 1 day restriction of activity.

An estimated \$16 billion per year is spent in the United States as a result of injuries involving medical and hospital costs, lost days of work or school, and property damage.

This adds up to an average cost of about \$70 for every man, woman, and child in the country.

The accident victim is the largest user of our general hospital beds, tying up 2 million for an estimated 20 million bed days per year.

About 80,000 man-years are spent yearly applying the scarce skills of medical and paramedical personnel to victims of accidental injury.

It has been estimated that by effective application of existing knowledge, 40 percent of accidental injuries could be prevented, resulting in a savings of 40,000 lives, 20 million injuries, and \$6½ billion per year.

Application of cost effectiveness analytical procedures have shown that injury control activities result in higher ratios of benefit than any other health programs so measured.

Existing knowledge in modification of environment, the redesign of hazardous products and education, and code enforcement to bring about reasonable changes in human behavior can be utilized.

Given the potential of injury control, the paucity of effort along these lines is startling and discouraging.

Injury control and research is simply "not fashionable" in scientific circles. There are only a few scientists capable of conducting research on injuries, nor is there much interest in scientific institutions in preparing individuals for such work.

Little or no teaching on injuries takes place in schools of medicine other than some learning on how to cope with their results. Few individuals working in public health are involved in injury control. A partial explanation for this dismal picture lies in the fact that there is no powerful lay lobby highlighting the injury problem before the American people.

There is not much public relations appeal in preventing accidents.

Recently at a large children's hospital, the case of a young child was discussed who had retained a heart transplant for a month before dying. There was much enthusiasm expressed by the surgeons and immunologists who had accomplished this tremendous feat. They are all ready to try again.

Not surprisingly, no mention was made of the heart donor. He happened to be a healthy youngster riding in the back seat of a car traveling at 10 miles per hour when it was struck at an intersection. He was not in his seat belt. Both children should be alive—but consider the attention being devoted to cures versus the attention given to prevention.

It is sad!

EMERGENCY HEALTH SERVICES

Linked to the problem of accident prevention is the medical care and transportation provided for victims of accidents or acute illness.

It is estimated that 35,000 heart disease victims die every year for lack of proper emergency care.

In my own community, thanks to the action of this committee, dozens of lives have been saved by specially trained firemen operating a mobile coronary intensive care unit called Medic I.

Such programs should be present in all communities. Yet, less than 10 percent of our hospitals are equipped and staffed to handle all medical emergencies, and less than 5 percent of our Nation's ambulances are manned and equipped according to minimum standards.

A prominent Seattle City councilwoman was involved in a relatively minor accident while traveling in a neighboring State last year. She died 24 hours later because the emergency facilities in the area were inadequate, and her injuries went unrecognized.

INJURY CONTROL IN THE DEPARTMENT OF HEW

Given the magnitude of these problems, what has been the response of the Federal Health establishment—one big yawn.

There are a few uncoordinated injury programs scattered throughout HEW, none of them adequately funded.

There are absolutely no grant or contract funds available for new accident prevention research projects, and the very few scientists who were receiving support for injury research training have either had their grants reduced or abolished.

Actually, there was a good accident prevention program put together in the Public Health Service from 1961 through 1966, but support headed downhill since then.

The real death knell to the program came in 1968 when the injury control program, as it was then called, was split down the middle.

Responsibility for product injuries was given to the Food and Drug Administration; the Environmental Health Service supposedly took care of home and other types of injuries. This may have looked good on some bureaucrats' organization chart—they like those charts with boxes back here in Washington, D.C., but there were live human beings involved.

In other words, if you broke your hip in a fall at home, you were studied by one agency; if your toes were chopped off by a power lawnmower, you belonged to another box.

A good team was broken up; morale was shattered. Where are other fragments?

There is a spinal cord injury program, and a head injury research program in one institute out at NIH, and there is a trauma research program in yet another institute.

Emergency Health Services are lodged in the Health Services and Mental Health Administration, and the Poison Control Division, with absolutely no budget for research, is off in some cubbyhole in the FDA.

In the fiscal year 1972 budget before you, the administration has requested further reductions in the budget of the Bureau of Community Environmental Management, where the last vestiges of the injury control program sits.

The effect of this budget reduction will be to eliminate all injury control staff based in regional offices, sacrificing personnel with many years of training and experience.

Mr. Chairman, I wish I could tell you that this downgrading of accident prevention and emergency health services is the result of some calculated decision at HEW.

That might make some sense, albeit diabolical. The real reason, I regret to say, is sheer bureaucratic incompetent bungling. Despite appropriate lip service, the Department has made no tangible commitment to preventive medicine in general, nor to accident prevention specifically. Whenever I inquire about injury control, I am told either that it is under study, or that a decision on reorganization is just about to be made.

I have seen your letters to the last three Secretaries at HEW urging that the pieces of the accident prevention program be put together again.

These responses to you could have been used as classic examples in the new book about the Department of HEW written by a young physician, Arthur Levin, called "The Sacrificers." His thesis, to which I fully subscribe, is that the reaction of the bureaucrats at HEW to all critical letters is to satisfy the writer through obfuscation.

In the report of this committee accompanying the appropriations bill of 1970, issued on February 26, 1970, the following statement is made:

Accidental injuries rank as the fourth leading cause of death in the United States and the primary cause of death between ages one and thirty-five. Within the appropriation recommended for the Environmental Control Administration, the committee wishes to stress the need for maximum attention to injury control activities. Consideration should be given to consolidating some of the programs throughout the Department dealing with various aspects of accidental injury. Of major importance, is establishment of a nationwide epidemiologic surveillance network to obtain reliable information on the incident of injuries and how they might be prevented. Special attention to preventive measures in the home is particularly important since each year there are 24,000 accidental deaths and 20 million injuries in and around the home.

STUDY OF INJURY CONTROL AND EMERGENCY HEALTH SERVICES

I would point out to the committee that this recommendation has been studiously ignored.

Actually a thorough study of injury control and emergency health services was conducted last year by a special steering committee to which I was a consultant.

The final report was issued in June of 1970, with a copy forwarded to this committee. The steering committee recommended the pulling together of Department programs into an integrated center for injury control and emergency health services.

When Surgeon General Jesse Steinfeld testified to this committee last year on August 6, 1970, he was closely questioned by the chairman of this report. He assured the committee that the Department was in the process of implementing the report and establishing an appropriate center for injury control and emergency health services. Not only was the plan shelved; the report itself was never made public.

RECOMMENDATION

Mr. Chairman, the expenses for medical care in this country continue to soar with no apparent increase in the health level of our people. We cannot concentrate exclusively on curing every disease on this planet. As you have pointed out repeatedly through the years, we simply must place greater emphasis on prevention. I submit that accident prevention is an appropriate place to start.

I would urge the committee to direct the Department of HEW to consolidate all programs concerned with accident prevention and emergency health services into a single administrative unit attached to the Office of the Assistant Secretary for Health and Scientific Affairs.

One million dollars should be allocated for the development costs of a national center for injury control and emergency health services. This sum is a tiny one in the face of a monumental problem but a start must be made somewhere. The Department has not shown the leadership; this committee must act.

I would like now to briefly comment on two other items in the appropriations bill, funds for Maternal and Child Health and for the National Health Service Corps.

MATERNAL AND CHILD HEALTH SERVICES

Mr. Chairman, we frequently state that children in the United States are our greatest natural resource, yet our efforts on their behalf prove we do not mean what we say.

Although children under the age of 15 constitute approximately 37 percent of our population, they receive less than 5 percent of the Federal health dollar.

Several enormously successful programs are currently operated by the Maternal and Child Health Service of HEW, but they are woefully underfunded. The most important of these is Crippled Children's Services which came into being in 1935 with the Social Security Act.

This program operates in all of our States, on a matching basis, and covers the cost of care of some children with crippling conditions.

The problem is that less than 10 percent of children who would be medically and financially eligible for care under the program can be covered due to financial limitations.

Also there is great disparity from State to State in cases covered. In the State of Washington, for example, children with cancer and

cystic fibrosis are excluded even though these terrible diseases wipe out the financial resources of all but the most wealthy family.

In a survey of handicapped children in Washington State conducted by the Washington State Society of Pediatrics, it was found that some children born with too much fluid on the brain are being denied an operation which could relieve that pressure and prevent mental retardation because the operation is not covered under Crippled Children's Services.

Mr. Chairman, I believe there are more than 30 proposals for national health insurance now before Congress. Such distinguished legislators as Senator Long and Congressman Mills believe that a national health insurance bill will emerge in the next year or two and that it will contain at least protection against catastrophic illness.

I should like to remind the members of this committee that you have within your power to promptly implement a catastrophic illness program for children without additional authorizing legislation (with the exception of authorization limits), through the mechanism of funding Crippled Children's Services.

I urge the committee to appropriate \$325 million for maternal and child health activities, an increase of \$90 million over the President's request.

NATIONAL HEALTH SERVICE CORPS

Finally, I would like to support the Department's budget request of \$10 million for the National Health Service Corps.

As the members of this subcommittee well know, this is an exciting and innovative program directed toward alleviating shortages of physicians in rural and urban areas.

The new law was sponsored by the chairman of this committee and passed unanimously by the Senate last year which serves as a tribute to the continuing vital leadership shown by Congress in the health field. This program, once initiated, should serve to inspire a host of needed innovations in American health policy.

Senator MAGNUSON. Thank you for your fine statement.

Let me say that we are going to proceed to review the Product Safety Act starting next week.

Dr. BERGMAN. That is very good, Mr. Chairman.

I would like to point out, Mr. Chairman, thanks to the efforts of this committee, we have a good mobile intensive care unit in Seattle, where heart attack victims are resuscitated, and I know personally many lives have been saved by this program. There is no excuse why this type of program should not be made available in every part of the United States.

Senator COTTON. I am somewhat shocked to read the second paragraph of your statement, where you say:

I am also a member of the Injury Control Advisory Committee of the Department of Health, Education and Welfare, a body that has not met since September of 1969.

What was the reason for that?

Dr. BERGMAN. It is complete indifference. This book has just come out called "The Sacrificers", and it is about the Department of HEW.

I am sure the Department is not satisfied with it. It is written by a young man who is a pediatrician and worked in the Secretary's office

for a couple of years. He talks about the fine bureaucratic art in Washington of doing a job just enough to suffice and satisfy critics. I am aware the letters that the chairman has sent on the subject of injury control and the report of this committee last year.

Senator MAGNUSON. You can carry this even further. We say write specific guidelines in a report, and we direct that certain actions be taken, and they do not happen, particularly with expenditures of some moneys in certain places.

I have a copy of that book, but I am going to wait to read it until after these hearings.

Dr. BERGMAN. I think the Department is fortunate that you will not read it before they come in.

Senator MAGNUSON. Then perhaps I should read it fast before we mark up the bill.

Now, one example we have of cooperation, we have these mobile coronary units that have been set up, and we happen to have one back home, and the fire department operates it. The community put in so much, the doctors have contributed some of their time, they get on a list, and the city has contributed so much. I do not know how many lives it has saved, just all kinds of things it has done, and the Federal Government put in about \$3 million for the whole country, I believe it is.

And then they say, once you get going, we will skip you, which they did, and I had to almost go down there and sit on the steps to get something like \$50,000 to keep that unit going, and I am supposed to know where to go, but I did not know where to go when I got down there. They changed the signs on the door, so if you are not there every day, you better watch out, you will get lost. I am not criticizing anybody in particular down there, but this is where we lose sight of so many of these things.

Dr. BERGMAN. I think some of the people who run the programs ought to be faced with talking to the widow of a person who dies needlessly of a heart attack.

Senator MAGNUSON. It was \$50,000—that was all I wanted.

Dr. BERGMAN. There seems to be a certain bureaucratic callousness of saying, "Oh, well, let's just not make any fuss about it," and with the greatest long words I have ever heard.

Senator MAGNUSON. Well, with regard to the Maternal and Child Health Service, we will have to take a good long look at this. In fiscal 1971, there was a total of \$261 million for the Maternal and Child Health Service, and the budget comes up with \$326 million, but that increase is mainly for family planning services.

Dr. BERGMAN. That is correct, sir.

Senator MAGNUSON. Well, we thank you very much for your statement and for waiting so long.

Senator COTTON. Your observations with regard to accident prevention to me are very startling. I think this committee will give it some attention.

Dr. BERGMAN. I think the Department could do well to take a look at the whole area of preventive medicine and that is one place where we could certainly start, sir.

Senator COTTON. I gather you think it is even more important to bring these activities together than to have them diffused throughout?

Dr. BERGMAN. Yes, sir, consolidation of programs within the Department is even more important than the amount of money.

Senator MAGNUSON. Thank you very much.

Dr. BERGMAN. Thank you, Mr. Chairman.

STATEMENT AND STUDIES OF DR. H. H. FUDENBERG, UNIVERSITY
OF CALIFORNIA

Senator MAGNUSON. The Senator from California, Senator Cranstons, and several other witnesses have spoken about the work of Dr. Hugh H. Fudenberg of the University of California who has made a study and is continuing an analysis of "cost-benefit" or "cost-effectiveness" impact of health research funding. This is something we are all interested in and I shall place in the record a few excerpts from material and information made available to the subcommittee by Dr. Fudenberg.

(The information follows:)

INTRODUCTION

The Use of Cost-Benefit Analysis:

Basically, cost-benefit analysis involves the enumeration of possible solutions to a problem, their costs, their effects, and their potential benefits. The present status of cost-benefit analysis in the health field has been reviewed by Klarman (1). We can make fairly informed statements about the cost and effectiveness of some methods of treating known illnesses, but we have very little information on the cost-effectiveness of a program designed to prevent the symptomatic stage from every being reached. However, based on prospective studies such as Framingham's, we can estimate how certain diseases might be prevented and using the economic concepts described below we can estimate the benefit of such a reduction. We then have an idea of how much it would be worth the nation to spend to prevent diseases in a strictly economic sense. So, although we do not yet have the experience to say exactly what form our preventive medicine program should take, how it should be financed, or how it should be initiated, we can at least estimate the incentives for undertaking such an effort.

The Economic Value of Human Life:

Lives saved and non-fatal illnesses prevented are important for comparing the effectiveness of different programs, but if one is to actually compare benefits with costs, an economic measure of benefits is needed. A methodology for estimating the economic value of human life has been developed by Rice and others (2, 3, 4). Earnings are taken to be the appropriate measure of economic worth to society, and the present

value of an individual's expected lifetime earnings is the indirect economic cost to society of his death. Future earnings are converted to present value by the use of an arbitrarily chosen discount rate such as 4% or 6%. The discount rate reflects the fact that a dollar available for use now is worth more than a dollar available sometime in the future, and the higher this discount rate the lower the present value of future earnings.

The indirect cost of non-fatal illness is reflected in earnings lost until the individual recovers. Both fatal and non-fatal illnesses also have direct costs; these are the amounts spent for treatment and medication.

A discussion of some of the shortcomings of this approach is in order. No allowance is made for the value of intangibles such as the quality of life or the cost of physical suffering or mental anguish and thus the method tends to underestimate the real cost of illness. While this problem should be kept in mind, for our purposes it is not a serious one. Our estimates of the benefits of reducing diseases will be made somewhat conservative, a desirable feature if one is arguing that these benefits still far exceed the associated costs, as we intend to do.

Another difficulty is whether an allowance for an individual's consumption should be deducted from his total earnings in order to determine his "net productivity". There is some difference of opinion on this point among medical economists, but we have taken the view of Rice, Fein and Klarman that no such deduction needs to be made. The reasoning here is discussed by Fein (5).

Computing the Economic Benefits of Eradication or Prevention of Diseases:

Given the numbers of fatal and non-fatal illnesses preventable, the computation of benefits is very straightforward. There will be both direct and indirect savings associated with each fatal or non-fatal occurrence of diseases.

Lacking any better information, we will assume that the direct cost per illness for a given disease is the same whether fatal or non-fatal. Rice (2) gives \$2.267 Billion as the direct cost of all diseases in 1963. A factor of 1.43 was used to correct 1963 figures to 1970, estimated from data on the cost of medical care in the Statistical Abstract (6).

To compute the benefits of disease prevention, let

D = direct cost per illness, fatal or non-fatal

R_i = indirect cost, non-fatal

S_i = indirect cost, fatal

X_i = number of non-fatal illnesses prevented

Y_i = number of fatal illnesses prevented

B = total economic benefit of prevention

(The subscripts refer to specific age and sex groups, e.g., $i=1$ refers to males aged 30-39).

Then,

$$B = D \sum_i (X_i + Y_i) + \sum_i R_i X_i + \sum_i S_i Y_i$$

where the summations are over all age and sex groups, in our case five.

The first term on the right side of the equation is the total direct saving, while the second and third terms are the indirect savings from reduced morbidity and mortality, respectively.

REFERENCES

1. H. Klarman: Present Status of Cost-Benefit Analysis in the Health Field. Amer. J. Pub. Health, 57: 1948, 1967.
2. D. Rice: Estimating the Cost of Illness. Health Economics Series, No. 6, U. S. Dept. of Health, Education and Welfare, PHS Publ., No. 947-6, May 1966.
3. D. Rice and B. Cooper: The Economic Value of Human Life. Amer. J. Pub. Health, 57: 1954, 1967.
4. D. Rice: Measurement and Application of Illness Costs. Publ. Health Reports, 84: 95, 1969.
5. Fein: Economics of Mental Illness. Basic Books, New York , pp 18-19, 1958.
6. U. S. Department of Commerce: Statistical Abstract of the United States, 91st Edition, p. 62, 1970.

H. H. FUDENBERG, M.D.

- I. The eradication of poliomyelitis resulted directly from research funds granted to determine whether viruses would grow in monkey kidney. They did!!! Therefore, it became possible to grow large quantities of viral material so that the Salk and Sabin vaccines could be given to virtually all persons at risk.

Insofar as I can ascertain, economic data on cost-benefit poliomyelitis are available only for the type of poliomyelitis known as paralytic poliomyelitis, and only for the years 1955-1961. During this seven-year period, the use of Salk vaccine prevented approximately 154,000 cases of paralytic polio as based on the difference in incidence during this period and the period during the three immediate pre-vaccination years 1955-1961; of those affected during this period, again based on data from the preceding three years, 12,500 would have died, 14,300 would have experienced no residual disability; of the remainder, 36,400 would have been severely disabled, 58,100 moderately disabled, and 32,700 have suffered only slight disability.

- 1) Estimates of the medical care costs avoided through prevention of paralytic cases during these seven years are estimated at \$327,000,000 based on hospital costs at that time (obviously, much higher since), length of hospital stay, cost of other services (braces and appliances, special nursing, physical therapy, etc.)
- 2) Estimates of loss of lifetime income, based on age at which morbidity and mortality occurred, and on sex, the per capita lifetime income lost (assuming 100% loss of income for deaths), 50% for severe disability, 25% for moderate disability, and 10% slight disability for males, and a total cumulative income; for males of \$226,040, and for females of \$44,850 was \$6,389,700,000 (for males, approximately \$5.1 billion, and for females 1.3 billion).

Total Savings:	\$6.7 billion (0.3 billion from 1) and 6.4 billion from 2)
----------------	---

Costs: Purchase of Vaccines	\$129,800,000
-----------------------------	---------------

Physicians Vaccination Fees	468,600,000
Vaccine Administration	<u>13,300,000</u>

	\$611,700,000
--	---------------

Vaccine Research and Field Trials	<u>\$ 41,300,000</u>
-----------------------------------	----------------------

Estimated Net Gain Accrued	\$6,053,000,000
----------------------------	-----------------

H. H. FUDENBERG, M.D.

II. Tuberculosis:

Data have been compiled for the period 1954 to 1969, since 1954 was the first economic year in which the control of tuberculosis by chemotherapy and chemoprophylaxis has been recorded. The data below represent conservative figures, since they are based on the following estimates, which are, indeed, conservative:

- (a) average cost of hospitalization in 1954 - \$15.00/day
average cost of hospitalization in 1969 - \$38.00/day.
- (b) average loss of productivity per hospitalized patient
in 1954 - \$2,000/year; in 1969 - \$4,000/year.
- (c) Calculated on data from the U. S. Veterans Administration and the United States Public Health Service, the average per diem census in all hospitals in the United States for tuberculosis was 100,000. The figures below are based on the assumption that the incidence of new cases of tuberculosis would have declined 3.5%/year without chemotherapy so that 58,600 beds would have been occupied in 1969 (assumption).
- (d) cost of out-patient clinic was 10% of the cost of care in hospital (probably, at least for the year 1969, a very excessive estimate; therefore, a conservative estimate as compared to present savings).

Resulting estimates (in billions of dollars):

Savings in hospitalization costs	\$4.19 billion
Cost of out-patient care of non-hospitalized patients	<u>-.42</u>
1. net savings on treatment	<u>\$3.77</u>
2. savings in decreased loss of productivity	<u>1.20</u>
Estimated Economic Benefit	<u>\$4.96 billion</u>

It is noteworthy that during this same period of time the Congress of the United States allocated \$773.1 million (less than one-sixth this amount) to the National Institute of Allergy and Infectious Diseases for support and training in the area of all infectious and immunologic diseases.

H. H. FUDENBERG, M. D.

III. An immunization effort against measles was initiated in the United States in 1963; this again, was made possible by the research which made large-scale propagation of viruses possible. (Ender, J. F. and Peebles, T. C.: Propagation in tissue cultures of cytopathogenic agents from patients with measles. *Proc. Soc. Exp. Biol. Med.*, 86: 277-286, 1954.) In 1968, the estimated number of measles cases was 250,000, about 6% of the estimated mean for the ten-year period (1953-1962) preceding immunization.

For every 100,000 cases of measles, 100 cases of measles encephalitis can be expected to occur; of these, 100, 10 will die, and 33 will be mentally retarded, or have other central nervous system damage. Long-term institutionalization is assumed for this latter group. In addition, an average of 500 more patients with measles will develop complication such as pneumonia, or otitis, or other illness severe enough to warrant hospitalization.

Based on an estimated mean hospital stay of 14.6 days for encephalitis patients, and 8.5 days for other hospital patients; the estimated number of hospital days/100,000 cases of measles is 5,710 - 1,460 for encephalitis patients, and 4,250 for other patients. The following computation assumes that half the number of patients not hospitalized were attended by physicians (half in physicians' offices, and half in patients' homes). (Data from the National Center for Health Statistics indicated that 51% of measles patients were medically attended in 1964, and 65% in 1965). Other figures are based on data that hospitalized encephalitis patients were charged \$190.00/patient in 1966 for physicians' services, and that hospitalization costs at short-stay community hospitals for non-encephalitic acute measles ranged from \$38.91 in 1963, upward to \$54.09 in 1967, and that hospital costs for encephalitis patients were \$73.00 in 1966 (Schwab, P. M.: Public Health Reports 83: 860-966, 1968).

The cost of custodial care is estimated at \$3,000/patient a year for the institutionalized patient:

Savings based on above:	\$531,543,000
Cost of Immunization (@ \$3.00/dose of vaccine):	<u>108,300,000</u>
Net Savings:	<u><u>\$423,243,000</u></u>

H. H. FUDENBERG, M. D.

Savings: (in thousands of dollars):Direct Medical:

1. <u>Physicians' Services in Offices</u>	
encephalitis cases	\$ 173.
other acute cases	37,259.
2. <u>Physicians' Services in Hospitals:</u>	
encephalitis cases	\$ 1,971.
other acute cases	2,755.
3. <u>Hospital Services:</u>	
encephalitis cases	\$ 12,359.
other acute cases	17,490.
4. <u>Gamma Globulin for Contacts:</u>	5,558.
5. <u>Lifetime Care for Mentally Retarded:</u>	<u>\$200,833.</u>
	<u>\$278,398.</u>

Indirect-Due to Loss of Productivity:

1. <u>Premature Death:</u>	\$ 49,904.
2. <u>Mental Retardation:</u>	\$166,433.
3. <u>Work Losses:</u>	<u>\$ 36,808.</u>
	\$253,145.

In summary, the basic research which lead to the measles vaccine during the years 1963 to 1968 averted 9.7 million acute cases of measles, and 3,244 cases of mental retardation. It also is estimated to have saved 55,000 hospital days, 291,000 years of normal life, more than 1.6 million work days, 32 million school days AND \$423 million. (Incidentally, about 90% of the savings in each of these categories was realized in the last three years-the period of intensive national effort to eradicate measles.)

- IV. Other examples might be cited, though it is too early to garner meaningful economic data. For example, funds awarded to investigate 'feedback control' of antibody synthesis led to the introduction of the use of minute amounts of anti-Rh antibodies into Rh negative mothers, eliminating their ability to make antibody to the red cells of their fetus when Rh positive (about 85% of the time), and will, within the next few years, lead to the complete eradication of hemolytic disease of the newborn with the economic savings accruing from exchange transfusions avoided, doctors costs avoided, and institutionalization due to severe brain damage avoided, as well as to the abolition of intra-uterine death due to this cause (hydrops fetalis).

San Francisco Chronicle

THE VOICE OF THE WEST

December 17th, 1970

Dr. H. Hugh Fudenberg,
University of California,
Medical Center
San Francisco,
California

Dear Hugh:

Your "cost-effectiveness" study of the impact of research funding offers a fascinating and valuable new look at the results of research in the life sciences. It should impress both the public and Congress.

I've done a lengthy article on your analysis, and coupled it with some numbers on NIH funding, plus some thoughts from the new National Academy of Sciences report.

I would think it would be extremely useful if your colleagues in other parts of the country were to present similar material to sympathetic science reporters in their own communities. There are many capable and conscientious reporters who are as alarmed as you are about what is happening to our research budgets; they could help inform the public and create support at every level. I've already sent your material to Victor Cohn at the Washington Post and Judy Pandal at the Washington Star.

Thanks for your own zealous effort; you've given us a good story,* and an important one.

Yours sincerely,



David Perlman
Science Editor

DP:phab

*See San Francisco Chronicle
Fri., Dec. 25, 1970

An Unusual Research Plea

Putting a Price on Medical Saviors

By David Perlman
Science Correspondent

When Defense Department planners study their weapons budgets, they use a system known since Robert McNamara's day as "cost-effectiveness" analysis.

The idea is to get more bang for a buck, and the bigger the bang the more justified the cost.

The same principle might be useful in analyzing other big expenditures of government—including scientific research.

Now a San Francisco physician and immunologist has applied the analytic technique to some recent life-saving discoveries in medical science, and if anyone needs proof that fundamental research pays off, Dr. H. Hugh Fudenberg can provide it.

Dr. Fudenberg is professor of medicine at the University of California Medical Center here. Like his colleagues all over the country he has grown more and more distressed in recent years over the serious slow-down in medical research appropriations, particularly for basic investigations in the life sciences.

WORK

Basic research is, of course, the kind of laboratory work a scientist does because he seeks answers to fundamental questions rather than looking for more practical applications.

The basic work is often more difficult to justify to a tax-harried Congressman or a public that turns on only to miracle cures or new drugs or daring surgical achievements. Yet until the fundamental questions are answered in detail practical, life-saving developments are far harder to achieve; they are often impossible.

Dr. Fudenberg has now tried to put some tentative dollar figures on the benefits Americans have reaped from research in only three areas — polio, tuberculosis, and measles.

ASPECT

Disregarding for a moment the human aspects of averting suffering and death from these three diseases alone, Dr. Fudenberg estimates that conquering them has saved Americans a minimum of \$11.5 billion in the last few years — perhaps twice as much. The cost of the basic research that led to the vaccines against polio and measles, and to the chemicals used against TB, were only a fraction of this huge amount.

The numbers become even more significant when viewed against the background of over-all medical research spending by the Federal government.

The National Institutes of Health (NIH), for example, has a research budget of about \$1.2 billion for the current fiscal year; considering inflation, the budget has not increased at all over the previous year.

BREAKDOWN

The NIH breaks down its figures to consider the amounts available for "extramural research." This is the work, supported by NIH grants, that scientists perform in outside laboratories — largely in universities. "Intramural research" is done by NIH staff scientists at the various federal institutes in Bethesda, Md.

According to Dr. Robert W. Berliner of NIH, extramural research funds were climbing rapidly in the halcyon period from 1960 to 1967. They rose, in fact, about threefold.

After 1967 the dollars inched up slowly for one year, then dropped. Last year the NIH total for extramural research was \$699 million; the year before it was \$728 million. It will probably drop again this year.

VIEW

In the view of men like Dr. Fudenberg the cuts may be one of the worst bargains America ever bought. Fudenberg believes the proof is in his painfully gathered figures, rough and inadequate though they may be.

Take polio, for example. The original research funds that formed the basis for polio vaccine were granted for a fundamental project designed to find out whether viruses would grow in monkey kidneys. They did, and the vaccines followed.

BENEFITS

The development and field trials of the Salk and Sabin vaccines originally cost a total of about \$41 million. In the first seven years of their widespread use the costs of vaccines and their administration in America ran to about \$612 million.

And what were the benefits for that period? Dr. Fudenberg estimates them this way:

About 154,000 cases of paralytic polio were prevented, and 12,500 of those victims would have died. Only 14,500 would have escaped serious disability.

Based on the charges of hospitals at that time, the total cost of medical care for all the polio victims during the period would have been \$327 million. The lifetime costs of income lost — total income for those who would have died, and varying proportions for those who would have suffered disability — would come to \$64.1 billion.

And that huge sum is only for seven years of polio vaccine. It is now 15 years since the vaccines became widespread, so even without inflation the dollar saving would be more than \$12 billion, compared with a vaccination cost barely ten per cent of that.

DRUGS

Dr. Fudenberg has carried his cost-effectiveness thinking to the economics of tuberculosis too. By 1954 chemical research had developed new drugs that treated TB quickly and effectively, and other drugs that could pre-

From Page 23

vent the disabling disease in those exposed to active TB cases.

Before those drugs arrived there were about 100,000 TB patients in American hospitals. Improved sanitation and better public health practices might have cut the incidence of the disease by 40 per cent even without drugs, Dr. Fudenberg calculates.

But now the patients who do contract the disease are treated chemically rather than hospitalized, and the cost of clinic treatment is less than 10 per cent of hospitalization.

RESULT

The result, according to Dr. Fudenberg's figures, a net savings of \$3.77 billion in the cost of treatment since 1954, plus another \$1.2 billion saved through preventing the loss of earning power by TB patients.

(In this same period, Dr. Fudenberg notes, Congress allocated \$773 million — less than one-sixth of the TB savings — to the National Institute of Allergy and Infectious Diseases for research and training to combat all infectious and immunologic diseases.)

Research efforts to find a safe and effective measles vaccine began in America in 1963. By 1968 the vaccine was being used, and measles cases were down to 250,000 — only 6 per cent of the annual average for the preceding decade.

In figuring the cost of measles, physicians estimate that for every 100,000 cases, 100 victims will develop encephalitis; ten will die, 33 will become mentally retarded, and 500 will develop other complications.

COSTS

Dr. Fudenberg has projected the costs of hospitalization, of custodial care, of physicians' services for acute illness, and of productivity losses due to premature death and disability.

The basic research which led to the measles vaccine has averted nearly 10 million cases of the disease and 3244 cases of mental retardation, Dr. Fudenberg estimates. And after deducting the cost of the vaccine, he calculates the overall dollar savings for Americans at nearly \$425 million.

Cost-effectiveness studies of other major research programs would yield similar huge numbers, Dr. Fudenberg believes, but they are difficult to calculate even approximately.

A Billion Dollar Argument for the Life Sciences

FUNDS

For example, the NIH has granted funds to investigate an exotic area called "feedback control of antibody synthesis." The results promise to be spectacular:

The researchers are learning to use minute amounts of an antibody to combat the Rh factor in the blood of some pregnant women. This is the protein factor that can make a woman "allergic" to the blood of her own baby, sometimes destroying the fetal child and often causing lethal blood disease or brain damage in newborns.

Treatment now consists of drastic blood transfusions, but the new research will soon lead to a simple method of antibody injection. Lives and money will both be saved.

Further along the research path — if Congressional cost accountants do their homework and reverse the downward budget trend — are immunologic victories over fatal infections of the newborn, and perhaps even the solution to exciting quests for agents that will "immunize" against cancer.

STUDY

Earlier this month the National Academy of Sciences released an important and long-awaited study of the future of life science in America.

"The penalty for failure to prosecute a vigorous program of fundamental research," warned the Academy, "will be paid by those yet unborn."

The Academy predicted that with adequate funding current research efforts can attack a variety of problems related to human health. Some high Academy priorities:

- Finding "completely safe, reliable, effective and reversible biological measures" for birth control.

- Creating "new degradable insecticides and pesticides with highly specific actions" and understanding their ecological consequences.

- Inventorying the planet's renewable resources and developing new foods, and new species of plants and useful animals.

While neither research money nor scientific genius can guarantee cures or panaceas for disease, the Academy report said, it did add:

"If we fail to prosecute such research — if we fail to prosecute the promising beginnings that have been made — then surely there can be no such cures — no new modes of disease prevention . . . no new approaches to the mental disorders that inflict so much grief and suffering; no new means to cope with the ravages that our technology imposes upon the quality of urban and rural life — nor adequate early recognition the manner in which changing environment threaten humanity."

STATEMENT OF DR. KENNETH O. JOHNSON, EXECUTIVE SECRETARY OF THE AMERICAN SPEECH AND HEARING ASSOCIATION, AND CHAIRMAN OF THE COALITION OF INDEPENDENT HEALTH PROFESSIONS

TRAINING OF PROFESSIONAL AND TECHNICAL REHABILITATION PERSONNEL

Senator MAGNUSON. We will now hear from Dr. Kenneth O. Johnson, executive secretary of the American Speech and Hearing Association and chairman of the Coalition of Independent Health Professions.

Dr. JOHNSON. Mr. Chairman, members of the committee, we thank you for the opportunity for appearing before your subcommittee today.

I am Dr. Kenneth O. Johnson, executive secretary of the American Speech and Hearing Association, and chairman of the Coalition of Independent Health Professions.

I have with me Mrs. Ruth Wiemer, of the American Occupational Therapy Association; Dr. Doris Hanson, American Home Economics Association; Mr. Jack L. Ranney, International Association of Laryngectomies; and Mr. David Park, National Therapeutic Recreation Society.

I am authorized to testify on behalf of the coalition, which is comprised of 11 national professional societies. The membership of these organizations totals 375,000.

I am also authorized to speak on behalf of several other concerned organizations which have a combined membership totaling 84,000.

I am not here, however, to speak solely on behalf of the members of these organizations. More importantly, I am here to speak on behalf of the millions of physically, socially, communicatively, vocationally, and mentally disabled Americans whom we serve.

Mr. Chairman, when the administration budget was sent to Congress earlier this year, many professional organizations were deeply concerned with the proposal to reduce funds for training professional and technical rehabilitation personnel, a program of the Social and Rehabilitation Service, Department of Health, Education, and Welfare.

This proposed reduction is of such a disastrous nature that we simply must convey to the committee our feelings in the strongest possible terms.

The proposed reduction for fiscal year 1972 is \$13,050,000 less than the amount appropriated for 1971.

Both the size of the proposed cut, and the circumstances in which it has been advanced, convince us that what is involved here is not simply reducing costs during 1972 at the expense of the Nation's disabled people. This budget cut seems to radically alter the Government's role in helping to develop and carry out programs of rehabilitation.

In 1967, the Social and Rehabilitation Service training program was carried out with an appropriation of about \$30 million.

Since then, there have been moderate reductions, more or less in keeping with economy efforts which affected numerous programs in health, education, welfare, and rehabilitation, and which decreased the amount of money appropriated to the 1971 figure of \$27,700,000. Our organizations were concerned with those reductions. Each of them

meant a reduced ability to provide the trained people required to serve increasing numbers of disabled citizens.

Now we face a situation in which there is an apparent intent of completely eliminating Federal assistance for most of the training fields involved.

Meetings with agency officials have given us the distinct impression that this drastic reduction in the 1972 budget is the beginning of a phasing out of all such support for most of the professional groups which have cooperated with the Social and Rehabilitation Service for several years to build up the trained manpower supply in rehabilitation work.

Mr. Chairman, this training grant program has been a vital part in the growth of rehabilitation programs in institutions in the last decade or so. Without it, the various professions could not have sustained present-day manpower levels.

In speech pathology and audiology, for example, there were only 70 professional training programs in 1959, and the total number of accredited personnel in the field was only 2,273. Today the number of professional training programs has significantly increased, and there are more than 10,200 accredited people.

Much the same is true in occupational therapy: steady increase in the number of fully trained people so that more than 8,300 registered occupational therapists plus more than a thousand certified occupational therapy assistants are available today.

Back in 1962, there were less than 7,000 registered physical therapists in this country. Today there are over 15,000.

Some 15 years ago, only a handful—literally a handful—of people in this country were trained as specialists to work with the deaf. Deafness is a far more complicated disability than most people realize, which is one reason why work for the deaf lagged severely for so long. The rehabilitation training program has set in motion an organized effort to produce the kind of specialists needed to achieve real success in overcoming the problems of deafness.

One such training program has included the preparation of instructors of manual communication for professionals who work with the deaf.

Some of the most important results from the Social and Rehabilitation Service training program have been in the smaller, specialized fields which are crucial in dealing with certain kinds of disabilities.

These have included:

1. A small training program for selected schools of home economics, to provide experts who deal with the realistic problems of the disabled housewife;

2. The training of specialists in recreation for the ill and handicapped; and

3. The preparation of teachers of specialized speech techniques for those who have lost their voice mechanism as a result of throat cancer surgery.

Mr. Chairman, with respect to that special program, I would like, with the committee's permission, to ask Mr. Jack L. Ranney, executive secretary of the International Association of Laryngectomees, to take a brief moment to describe that program.

Mr. RANNEY. Mr. Chairman, I am Jack L. Ranney, executive secretary of the International Association of Laryngectomees.

The program which you are interested in is for the training of instructors who have this voice so that they can in turn teach thousands.

Now, it is estimated that there are 6,000 new cases of cancer of the larynx that are discovered each year.

Of this 6,000, there will be roughly 3,100 new surviving laryngectomees. These are added to the current estimate of about 25,000 living in the West or Midwest.

About one-third of them do not speak with a voice that is understandable. It is a field to work with right there, in addition to the 3,000 new ones each year, so there is a demand for instructors, and yet there are many areas in the country where there simply are no instructors, either professional or laymen, that is laryngectomees like myself.

The institute, which conducts a 2-week short course for training these teachers, has an attendance of about 25 trainees, half of whom will be professional speech therapists, and the other half will be laryngectomees like myself, and each of those in turn will teach maybe a hundred on how to speak again.

The age of the laryngectomee is about 55, most of them have come pretty well up in business, and they are beginning to earn pretty good money.

If they do not learn to speak, they become relief clients or somebody's burden, but if they learn to speak, they return to their jobs, and then they continue to pay taxes instead of consuming taxes, so just a few persons like this will completely offset the cost of this 2-week institute that is being held each year.

It is a completely ethical professional institute, and it has the support of the American Speech & Hearing Association, and of the American Cancer Society, and we think it is well worthwhile, and it would simply be another catastrophe if there was no training available for the 3,000 new laryngectomees.

Dr. JOHNSON. Like so many fields, rehabilitation today requires an increasing supply of trained personnel coming into the ranks each year to serve a steadily increasing number of severely disabled men, women, and children.

Much of the increased need for rehabilitation personnel in recent years has been a response to actions of the Congress.

Recent health care programs established by the Congress, such as medicare-medicaid, have allowed greater access to the health care system for citizens of our country.

Increased access has resulted in greater demand for specialized services.

The increased demand for professional health care services has been so extensive and has occurred so rapidly that our professions, by themselves, have been unable to meet the need for trained personnel.

There is all manner of evidence that more of the same lies ahead for us.

The present proposals for national health insurance, whatever final form they may take, are going to increase the demands upon rehabilitation programs, public and private.

Social Security Amendments of 1971, recently passed by the U.S. House of Representatives, provide for a welfare program which will

require that all handicapped persons applying for welfare register with the State vocational rehabilitation agency.

The agency would have to secure specialized diagnostic and evaluation services to determine if the person could be vocationally rehabilitated.

If so, the State rehabilitation agency would then have to secure the rehabilitation services needed to restore function and prepare the person for employment.

Mr. Chairman, cosponsor of S. 945, the proposed Uniform Vehicle Insurance Act, you are to be commended for including in that legislation provisions which assure victims of automobile accidents that "all appropriate and reasonable expenses" for medical, hospital, and rehabilitative services would be met.

Such provisions guaranteeing complete coverage for rehabilitative care for accident victims are of utmost importance, and we are most grateful to you for recognizing and supporting this principle.

If S. 945, or comparable legislation should become law, the need for properly trained professional personnel to provide all types of rehabilitation services would be greatly increased.

Senator MAGNUSON. I might say right there, of course they would, it would not be just taking care of the person when he is hurt, and getting him out of a hospital, or something like that, that is a part of the payment, but part of thing would be a period of rehabilitation following this hospitalization, if it is possible to do so, and this would increase the demand.

Dr. JOHNSON. This is true, and the demands are increased, and the trained personnel must come from a program such as this. The same would be true from some of the people who testified here earlier, Mr. Schwabacher and Mr. Heyworth.

These and several other bills now under consideration by the Congress make it clear that the future demand for trained rehabilitation personnel will be greater, not smaller, than it is today.

The only governmental source of help to produce qualified professional rehabilitation personnel is the training program of the Social and Rehabilitation Service.

There is no provision anywhere else in the 1972 budget to make up for the more than \$13 million that would be eliminated.

If this cut is sustained by the Congress, the capabilities of the Nation's programs and institutions in rehabilitation are going to be dealt a blow from which they will not recover for many years, if ever.

Furthermore, our training institutions are in an impossible situation. In the absence of any information from the Social and Rehabilitation Service as to how they should proceed, they cannot advise presently enrolled trainees as to plans for next year.

The training institutions cannot advise new applicants who are interested in entering training in one of these professions next September. They are not even sure what to tell their own faculties.

In short, Mr. Chairman, after some 15 years of excellent cooperative work with the Social and Rehabilitation Service in a common effort to improve and increase the supply of trained personnel to man the Nation's rehabilitation programs and facilities, we face, without explanation, the destruction of one of the Federal Government's best training programs.

I might add here that I would promote another earlier remark concerning the establishment of programs with the encouragement of the Federal Government, and then the abandonment of those programs, it leaves a rather unfortunate taste in the mouths of a lot of people.

Beginning more than a decade ago, these professions were encouraged to develop strong relationships with the Vocational Rehabilitation Administration, and more recently SRS.

These relationships have been established in a very commendable joint effort on behalf of all.

Senator MAGNUSON. Of course, the encouragement works both ways, and I run into some of this in my home State, and in HEW, this goes down the line, where they say to go ahead and do this, the Government builds up the hopes of these people. But most of the people they are dealing with should also know that these programs go from year to year, until we change them, and these are mostly intelligent people, or at least some of them have knowledge of how the Government works. They go ahead, and then come in here and make a plea, "we went ahead and did all of this," when sometimes they should not have done it.

Dr. JOHNSON. I think that is very true. I would agree with you.

Senator MAGNUSON. They should not have done it, or they should have done it with their eyes open, that this may happen to them.

Dr. JOHNSON. I think perhaps that is true as far as colleges and universities are concerned, but there is a very practical problem, even though you may go into it, as we all know universities have done, with their eyes wide open, they knew very well if the Government started to pull out, they would really be stuck, but they did it on a gamble.

Senator MAGNUSON. And sometimes you gamble and you lose, but some of these programs, this should not happen because the objectives are there, and we should strive to reach them.

Sometimes I almost get to a point where I think we ought to take a look at the whole bunch and pick out the ones we know we want, those that we know are going to work and adequately fund them and not start with a whole raft of them in which one takes from the other, and then they all drop. But as a practical matter, that does not happen, and there are so many programs, as you folks know, and it is hard to keep track of them.

I suspect even down at HEW they cannot keep track of them.

In fact, I know they cannot.

Dr. JOHNSON. You take the same thing, the same situation, where the Federal Government is now moving into a major national health insurance program. We know it is coming. We are going to be expected to provide services.

As a matter of fact, eight times as many services are provided, health services, are provided in this country by nonmedical people as there are provided by medical people, and yet we are finding an enormous withdrawal of the support at this particular time.

I urge you, on behalf of the millions of disabled people who need the help of the professions for which I speak today, to restore the funds for this training program to the amount appropriated for the fiscal year 1971.

Again, let me express my appreciation for the opportunity to testify before this committee.

For many years you have shown a keen and perceptive interest in our country's problems of disability and in the rehabilitation programs, both public and private, which are our best hope for mastering these problems.

I thank you for what you have done and I hope that we may have your support this year.

Senator MAGNUSON. Did you make any specific dollar suggestions here?

Dr. JOHNSON. Yes.

Senator MAGNUSON. I see. All right. We have that in the record.

Well, we would like to hear from you all, unless you have something to add, to put in the record, do you have anything to add?

The hour is getting late.

Mrs. WIEMER. I am Mrs. Ruth Wiemer, American Occupational Therapy Association, and I would like to put one point in the record as to your gamble.

I think our point here is that many of these schools did know that Federal funds might eventually be withdrawn, but our problem now of new legislation, this is making the demand so far out of what it was originally that now the problem is critical, where it might have been able to address the tide before, but it is just impossible now.

Senator MAGNUSON. Well, we are faced with an overall problem here.

How many people do you think we employ in HEW, the whole business?

Over 615,000 in the United States. That is why there is so much interest up here in the welfare problem, how can we do to do a better job, and not shirk any responsibilities that we have. I do not know that I have made up my mind on this, but I have almost come to the conclusion that the Federal Government has got to take over the welfare programs of this Country—the States cannot do it anymore.

You ought to listen to the Governors around the country crying about finances, and it is true what they say.

The cities cannot do it anymore. Then maybe we can consolidate some of these things, and have some uniform guidelines and do a better job with the money we can appropriate.

I hate to see people let down, and as it has been so well pointed out by you people, and I am sure you would agree with me, Senator Cotton, some of these programs have gotten right up to where it looks like we will get some results out of them, and many of them can be cut and closed at the wrong time.

Mrs. WIEMER. And to change the health care delivery system at the same time, this means a whole added burden on the schools.

Senator COTTON. I have noticed in the last 5 years on this committee that the budget makers downtown, and because they are strapped for funds, and they look for a place to shave off funds, they invariably do it on the training of personnel for the future. This is just exactly like the man that carefully paints his house and repairs his roof, and he lets his fire insurance lapse. It is the same thing. It means they are putting the money where it is visible today, and you do not feel the pinch today, but it means 5 years from now, you have got to have the people coming along and taking the place of those passing on. It is very shortsighted. So our job is to try to remedy it, and when you try

to remedy it, you have got to try to cut somewhere else, and it is not easy.

Mrs. WIEMER. We all know there will be a long line of people waiting for services, health services in the not too distant future, because of additional legislation that will be passed by Congress.

The amount of effort and money that has gone into the development of the attitudes on the part of young people, causing them to be interested in the rehabilitation field, all of these fields we are talking about, is something you cannot replace in a year, or even 5 years, and it seems to me to be the worst kind of foolishness to be talking about for \$13 or \$14 million, but it is so vital for the training of that kind of population.

Dr. HANSON. I see the matching interest of our association is far more than what comes as the incentive money, as it were.

Senator MAGNUSON. That is correct.

Dr. JOHNSON. As an appropriate earlier remark, there may be this misimpression concerning the contribution of the universities themselves in these programs.

The SRS requires a minimum of $33\frac{1}{3}$ contribution, and the average is approximately 60-percent contribution from the universities.

Senator MAGNUSON. And there is a lot of intangible contribution that you cannot put a dollar sign on.

The very fact that there is an institution, a climate, that costs something, too.

We thank you very much. We are sorry to keep you waiting, but you understand our situation.

LETTER OF NATIONAL TAY-SACHS AND ALLIED DISEASES ASSOCIATION, INC.,
DR. SAMUEL V. DUNKELL, MEDICAL DIRECTOR

Senator MAGNUSON. A communication to Chairman Ellender, referred to this subcommittee, from the National Tay-Sachs and Allied Diseases Association, Inc., Dr. Samuel V. Dunkell, medical director, will be made a part of the record at this time.

(The letter follows:)

I wish to take this opportunity to express to the Chairman of this Committee the appreciation of the parents, relatives and friends of our organization for the support of the Federal Government in the area of research into Tay-Sachs and related hereditary neurodegenerative diseases of infancy and childhood. Through this aid, which has involved relatively insignificant sums of money, we are now in a position immediately to prevent annually the birth of approximately 100 fatally ill children with Tay-Sachs disease. This has been accomplished through the application of results of recent major breakthroughs. As a result of these breakthroughs we now have the opportunity, as mentioned above, for the prevention of the birth of Tay-Sachs children as well as, in the near future, of children bearing other related fatal diseases. The estimated savings in money in the case of Tay-Sachs disease alone is approximately nine million dollars per year. The techniques used to control Tay-Sachs disease can very soon be applied to control approximately thirty other hereditary illness of an allied nature and also eventually to be utilized in the research and management of about 150 other medical diseases.

Among the application of the breakthroughs and advanced techniques that were implemented by research into Tay-Sachs is that of Hyaline Membrane disease, a disease that accounts for about twenty-five thousand infant deaths per year. It appears that these deaths may now be prevented by amniocentesis, one of the breakthrough techniques that can be utilized in research into sickle-cell anemia, cystic fibrosis, and certain forms of mongolism.

The NCRNDS suggests 144 million dollars to be budgeted to NINDS. I believe that this allocation can pay off enormously as I have attempted to demonstrate above. We are at the stage of medical technology and research where through the expenditure of relatively limited funds we can achieve great savings in the cost of medical care as well as eliminate potential suffering from large numbers of the population.

Very truly yours,

Samuel V. Dunkell, M.D.
Medical Director
National Tay-Sachs & Allied Diseases
Assoc. Inc.

SVD:LFP

LETTER TO SENATOR PACKWOOD FROM DR. GEORGE SASLOW, UNIVERSITY OF
OREGON

Senator MAGNUSON. Senator Packwood has referred to us a letter, written to him by Dr. George Saslow of the University of Oregon, requesting that it be made a part of the hearing record.

(The letter follows:)

University of Oregon Medical School

DEPARTMENT OF PSYCHIATRY



May 18, 1971

The Honorable Robert Packwood
 United States Senate
 6327 New Senate Office Bldg.
 Washington, D.C. 20510

Attention: Mrs. Carol Crawford

Dear Senator Packwood,

I am writing you in the hope that you can exert a helpful influence in the consideration being given to the plans of the Nixon administration to cut the NIMH psychiatry training program support by \$6.7 million this year and to phase out the entire support in three years' time.

The effects of these proposed cuts upon our Department of Psychiatry will be something like this:

1. The level of psychiatry resident stipends will be reduced to a point at which we will be greatly disadvantaged in the competition for capable future psychiatrists with other Western departments which have any stipend sources permitting them to offer stipends above those offered to residents in medicine and surgery. For example, here are the residency stipends offered at the University of California at Davis as compared with our medical school residency stipends (now supplemented with NIMH support):

Resident	<u>Davis</u>	<u>Oregon</u>
1st year	\$9612-10,344	\$6600
2nd year	\$10,344-10,860	\$7200
3rd year	\$10,860-11,400	\$7800

A considerable number of departments in the West (and the rest of the U.S.) have such sources.

2. This will be the case even if the Oregon Legislature is able to support all our present psychiatry residencies at the same stipend level as those in medicine and surgery. But, because NIMH has supported a number of our psychiatry residency positions from 30 to 100%, I cannot be certain even that the present number of residents can be continued, at any level, under present State financial circumstances.

3. An important feature of NIMH psychiatry training grants is that they provide for faculty to teach both residents and medical students. If our training grants stop, this department will lose 4 3/4 full-time faculty and 5 secretarial positions. (We have in our department 17 full-time faculty positions or the equivalent now). After such losses, we could not possibly continue an acceptable quality of instruction of a progressively increasing number of medical students or of the number of residents we now have in our 3 year program (18 residents).

4. With a smaller number of residents and teachers at the medical school, fewer psychiatric patients can be seen. For necessary experience with psychiatric patients, residents and students will (as before WWII) be forced back into the large State psychiatric hospitals. (Psychiatry will again be pushed out of the mainstream of medicine.) The Mental Health Division of Oregon and this department of psychiatry both consider it wise to move in exactly the opposite direction -- to more and more emphasis upon the comprehensive biological-psychosocial care of ambulatory psychiatric patients in or near their home communities.

5. The directors of psychiatric residency programs in the U.S. expect (as do I) that another consequence of the cuts will be a reduction in interest in the field of psychiatry on the part of medical students, that can nullify the great improvements in this field made since the passage of the Mental Health Act of 1946.

The consequences outlined above for our particular department, medical school and State are in no way unique. I attended a meeting in Washington, D.C. on May 4, 1971, of the Association of Directors of Psychiatric Residency Programs in the U.S. Reports were made to the Directors of conversations with the 3 Congressional Subcommittees holding hearings on these cuts. Over the U.S. as a whole, it looks as if the planned phasing out of NIMH psychiatry training program support will result in reductions of 30-75% of psychiatry department faculties and of 60% of stipend money for psychiatry residents.

One of the arguments used by OMB and the Nixon Administration for the planned cuts is that since medicine and surgery training programs are not supported by the Federal government, then why should psychiatry be so supported? My reply is that medicine and surgery are still, in nearly all the U.S. medical schools, carrying on most of their training on inpatient wards and deriving up to 95% of their financial support from hospitalized patients in such wards, (through 3rd party payments, etc.) One could argue -- and some schools do -- that medicine and surgery could very wisely expand their ambulatory patient activities. Then they would be more in the same boat with psychiatry. But at present, it is estimated that 2/3 of the patient care and doctor training activities in psychiatry are not on inpatient wards but in ambulatory settings -- where the consensus of psychiatry faculties believes they ought to be. Psychiatry, therefore,

cannot derive income from hospitalized patients in the way medicine and surgery can. NIMH has been the main source of funds for the innovations and improvements in the care of psychiatric patients outside the large psychiatric hospitals, and for the training of medical students and residents to become competent in delivering such improved psychiatric care. The medical schools (including our own) are not able to replace the funds hitherto provided by NIMH for modern psychiatric care and training from charges to hospitalized psychiatric patients -- they do not have the beds, cannot afford to build them, and do not see any point to moving in the direction of adding a large number of such beds. Further, as I understand the Nixon administration's nation-wide health insurance plan, mental illnesses are not covered at all in the same way that other illnesses are, so whatever the medical schools did to expand their psychiatric inpatient facilities, the financial return wouldn't help the situation of psychiatry very much.

The subcommittees dealing with the cuts are, so far as I have learned:

1. Subcommittee of the Commerce Committee of the House, on Public Health and Environment -- chairman Rep. Rogers (of Florida?)
2. Subcommittee of the Labor-HEW Committee of the House -- chairman Rep. Flood.
3. Subcommittee ~~of the~~ Labor-HEW Senate Appropriations Committee -- chairman Sen. Kennedy.

May I add that psychiatry is not alone in regarding the proposed cuts in the HEW budget as reflecting an unwise set of social priorities at this time? Social work, nursing and basic research in health matters have equally severe consequences to face -- which means the people of the U.S. will be facing these consequences shortly.

Hopefully and respectfully yours,

George Saslow

George Saslow, M.D.
Professor of Psychiatry
Chairman, Department of Psychiatry

GS:mo

STATEMENT OF JOHN C. HARMON, JR., ON BEHALF OF GOODWILL INDUSTRIES OF AMERICA, INC.

WORKSHOPS: NECESSARY PART OF REHABILITATION SERVICES

Senator MAGNUSON. We will now hear from Mr. John C. Harmon, Jr., representing Goodwill Industries of America, Inc.

Mr. HARMON. Mr. Chairman, it is a pleasure to be here, and I will not take but a few minutes.

Thank you for this opportunity to appear before your committee and express our views on certain of the appropriation requests now being considered by the committee.

I am John C. Harmon, representing Goodwill Industries of America, Inc., and its 146 member Goodwill Industries in communities throughout this Nation.

As general counsel, I have had the opportunity during the last 15 years to observe at close range the spectacular development of a mutually beneficial partnership between Goodwill Industries, the Federal and the State vocational rehabilitation agencies.

We in Goodwill Industries wish to pay tribute to the hard working staff of all these government agencies. Their dedication to the cause of the handicapped, disabled and disadvantaged is a wonderful example for all, both in and out of the government.

On behalf of the thousands of persons whose lives are more enjoyable, more useful, and more complete, we want to take this opportunity to thank you, Mr. Chairman, and the other members of your committee for the concern and support you have given to this great vocational rehabilitation program.

The 1965 vocational rehabilitation amendments became the high water mark in the recognition of workshops as a vital necessary part of rehabilitation services. It is because of the provisions of this act that we appear before you today.

We recognize it is a difficult task for this committee to consider a budget made large by all the different programs administered by the Department of Health, Education and Welfare.

I am sure every member of this committee wants to do no less than all that is possible to meet the needs of the often forgotten—the disabled throughout the land.

We know you are aware that their numbers have grown—where they once died, they now live—because of the tremendous medical advances, much of which this committee has supported with needed appropriations.

We should not overlook the great advances in programs of special education for the handicapped and disabled of which, again, this committee has great knowledge.

But so much of all this can lead to unhappy nonproductive lives unless vocational rehabilitation is supported in an expanded way.

Everyone is now caught up in the great discussion of how to stop the fighting in Vietnam. How often do we give attention to the vocational rehabilitation needs of the returning disabled veterans?

Is this the time to cut appropriations for vocational rehabilitation services?

We share the concern of this committee and Congress that every tax dollar be used in the most efficient and effective way for the greatest good of all the people.

We recognize the need for better methods of determining cost effectiveness of dollars spent on rehabilitation services. This is one of the reasons why Goodwill Industries of America, Inc., began a project, funded with the Federal support of SRS research funds (section 4(a)(1)), to develop an adequate uniform accounting system for not only Goodwill Industries but other rehabilitation facilities.

This has reached the point where we are experimenting in its use by State rehabilitation agencies. We know now that the system can be used by all health and welfare agencies.

Attached and made a part of this statement are four cases developed under our uniform accounting system to illustrate the cost effectiveness of the rehabilitation dollar.

Three of these cases involve individuals that receive training services funded under section 13 of the Vocational Rehabilitation Act.

We often talk about overall totals to justify the need for appropriations. Here we offer specific evidence on comparative costs to the taxpayer in the case of individuals now holding regular jobs, who have become taxpayers.

We wish to here support increased appropriations under section 13, not only for special training services projects (not to be confused with other training needs under section 7 and section 4), but also for rehabilitation facilities improvement and the program of technical assistance to facilities. (Attached is the copy of a letter describing the benefits of a single workshop improvement grant.)

To provide additional insight into the important types of research conducted through funds provided under the Vocational Rehabilitation Act, I wish to briefly refer to another project being carried forward now by Goodwill Industries of America, Inc.

This is the Volunteers in Rehabilitation project currently being conducted with a research and demonstration grant from the Rehabilitation Services Administration.

This project is designed to improve services to handicapped persons through greater involvement of citizen volunteers. Not just more service, but personalized service that reinforces the social value and esteem of every individual—the volunteers and those they serve.

Our Nation desperately needs this type of activity, and it will happen if sufficient funding is allocated for research, demonstration and progressive implementation.

We would also wish to emphasize that the demand for trained professional people is as great today as it has been for the last 15 years and the outlook is that the requirement will continue to increase for quite a while. Therefore, we support adequate funds for this program.

Goodwill Industries employs hundreds of these people. Our locals hire therapists of many kinds, rehabilitation counselors, speech and hearing specialists, and a variety of other kinds of specialized personnel. Thus we are very much affected by any massive reduction in training program funds.

In one field in particular, I wish to call the committee's attention to the effects of any training program reduction. Goodwill Industries is the largest single group of employers of workshop administrators in the country.

Several years ago it became evident that the growth in the workshop field in the United States would be seriously hampered if something could not be done to provide a systematic way of producing training administrators for the many workshops that were being developed to meet the needs of the handicapped.

The training program of the Rehabilitation Services Administration responded promptly and there has been, as a result, an excellent training program supported by the RSA to prepare workshop administrators.

We feel the need for continuation of this program most acutely.

I hope, Mr. Chairman, that you and the committee will restore these training funds to at least the present level available for fiscal 1971.

If the training program suffers a severe reduction of this sort in its funds, the whole rehabilitation effort in the United States will be seriously affected.

In the program for the construction of rehabilitation facilities and workshops, we face again a most discouraging budget picture.

As this committee is aware, I believe, the funds for this work have been so extremely small in the last few years that there has been no really effective help for the expansion of the facilities needed in this country. We believe the proper place to support much needed new construction is under section 12.

This is one of our truly unmet needs today. Because of the lack of assistance for construction, these projects have been piling up and we have large numbers pending at the present time among local Goodwill Industries.

With a budget that proposes no funds whatever for construction and related costs, I can only urge the committee to include in the bill as much funds for this vitally needed construction as you possibly can.

I assure you that it will be fully and most effectively used.

Finally, we recognize that the major source of funds for services to the handicapped, disabled, and disadvantaged under the Vocational Rehabilitation Act is the section 2—basic support of the State-Federal program.

Many of our local Goodwill Industries this year—fiscal 1970—have been advised by State vocational rehabilitation agencies that funds for the purchase of evaluation, work adjustment and training services from Goodwill ran out as early as February.

This is the "oil" that keeps the partnership running to produce needed services.

For the coming fiscal year 1972, the request is for an increase in the amount of about \$15 million. In some other programs, this might be a substantial increase—but in this Federal-State program, now operation at a level of more than \$500 million in Federal funds, this increase amounts, in effect, to a reduction in the operating capacity of the State Rehabilitation agencies.

In dozens of communities, the State rehabilitation agency and the Goodwill local work in close harmonious fashion.

The State agency regularly purchases, with the section 2 funds, a formalized and extensive program of evaluation for its handicapped clients, as well as work orientation, job training, and, in many instances, assistance with placement.

Thus our Goodwill locals are very directly affected by limitations on funds for the Federal-State rehabilitation program.

I hope, Mr. Chairman, that the committee will see fit to make a substantial increase in these funds under section 2. If you do, it will be reflected very directly in services to handicapped people who urgently need this help.

We wish to thank you again for this opportunity to provide you with information we believe will be helpful in your difficult task of allocating limited tax funds in a way to obtain maximum benefit.

If we can provide further information, please let us know.

We commend you for your untiring efforts on behalf of the handicapped, disabled and disadvantaged.

Mr. Chairman, I would like to submit for the record Exhibits A1 through B-3.

Senator MAGNUSON. Without objection, so ordered.

Mr. HARMON. Mr. Chairman, I would like to add that in the charts are case studies of specific effect of dollars spent.

On one of them, for example, it shows how much was spent in Government money before the person came to rehabilitation agencies in the State, and then the column showed how much was spent by the rehabilitation agency, including the times this person was in Goodwill Industries, and in the third column, it shows that that person is now employed at the rate of their wage, and the estimated taxes that they might be paying.

We believe this is the kind of specifics that sometimes are lost sight of, and we try to generalize about the great need.

Now, in that case, you can see what this committee has meant to rehabilitation through the years since 1962.

(The exhibits follow :)

EXHIBIT - A1

CASE NO. 70404

AGE: 53

SEX: Male

DISABILITY: Schizophrenic Reaction, Hebephrenic Type, Mental Deficiency with possible convulsive disorder. Secondary disability: Hearing Impairment.

VOCATIONAL REHABILITATION COST

Hearing Aid and Batteries	\$ 209.08
Work Evaluation Program (3 months)	258.00
Transportation	36.00
Work Adjustment Program (3 months)	210.69
Training Services Grant Janitorial Training and Allowance	4,586.55
Maintenance	<u>275.00</u>
TOTAL	\$5,575.32

TAX USER \$2,820 per year

Government Expenditures (prior to Vocational Rehabilitation program at Goodwill Industries)

Hospitalization: San Antonio State Hospital for approximately 11 years, 2 months and eight days at a cost of.....\$31,552.00

TAX PAYER \$276.00 per year
Employed at \$1.60 per hour, \$64.00 per week or \$3,328. per year.

Pay \$5.30 per week in taxes.

TOTAL - \$276.00 per year

Amount expended will be repaid in approximately 1 year and 3 months

NET GAIN TO SOCIETY	<u>\$3,096.00</u>
Yearly savings of	\$2,820.00
Yearly payment of	<u>276.00</u>
TOTAL	<u>\$3,096.00</u>

CASE NO. #70530

AGE: 40

SEX: Male

DISABILITY: Schizophrenic Reaction: Chronic Undifferentiated Type with Mental Retardation (Moderate),
Psychoneurologic Impairment.

VOCATIONAL REHABILITATION COST

Vocational Evaluation	\$ 300.00
Work Evaluation	300.00
Work Adjustment	100.00
Maintenance Allowance	315.00
TOTAL	<u>\$1,015.00</u>

TAX PAVER

\$276.00 per yearEmployed at \$1.60 per hour, \$64.00 per week,
or \$3,328.00 per year.

Pay \$5.30 per week in taxes.

Amount expended will be repaid in approximately
4 months.

TOTAL

\$276.00 per yearTAX USER Per Year \$2,820.00Government Expenditures
(prior to Vocational Rehabilitation
Program at Goodwill Industries)Hospitalization: Austin State Hospital
15 years, 6 months, 20 days
at (Approximate cost of \$235.00
per month. Based on San Antonio
State Hospital figures).TOTAL \$43,865.00

NET GAIN TO SOCIETY	<u>\$3,096.00</u>
Yearly savings of	\$2,820.00
Yearly payment of	<u>276.00</u>
TOTAL	<u>\$3,096.00</u>

CASE NO. 70429

AGE: 60

SEX: Female

DISABILITY: Schizophrenic Reaction, Paranoid Type

VOCATIONAL REHABILITATION COST

Vocational Evaluation	\$ 300.00
State Maintenance	20.00
Training Services Grant: Commercial Seamstress Training and allowance for 8 months at \$399.70/month	3,197.60
Halfway House Residence (3 months)	375.00
Transportation Expense	49.00
TOTAL	\$ 3,941.60

TAX PAYER\$275.00 per year

Employed at \$1.60 per hour, \$64.00 per week or \$3,328 per year.

Pay \$5.30 per week in taxes

TOTAL - \$275.00 per year

TAX USER \$3,540 per year

Government Expenditures (prior to Vocational Rehabilitation Program at Goodwill)

Hospitalizations: Peoria State Hospital two years (67-68) at an approximate cost of (based on S.A. Hospital figures of \$7.75/day) \$5,640.00

San Antonio State Hospital for nine months and twenty-two days (\$7.75/day or \$235/month) \$4,285.50

Government Monies:

VA benefits (widows pension since about 1940) of \$60.00 per month whenever unemployed. Has been unemployed about 18 years of the past 30 at an approximate cost of \$12,960.00

TOTAL\$20,885.50

Amount expended will be repaid in approximately 1 year.

NET GAIN TO SOCIETY\$3,816.00

Yearly savings of

\$3,540.00

Yearly payment of

276.00TOTAL\$3,816.00

CASE NO. 70255

AGE: 30
SEX: Male

DISABILITY: Mental Deficiency, Idiopathic, Moderate (1962)
Revised in 1969: Personality Pattern Disturbance: Inadequate Personality superimposed upon a psycholinguistic Impairment.

VOCATIONAL REHABILITATION COST

Vocational Evaluation Program	\$ 150.00
State Maintenance	13.00
Work Evaluation Program	86.00
Transportation	45.00
Training Services Grant: Laundry/	
Dry Cleaning Program and training	\$6,395.20
allowance for 16 months	240.00
State Maintenance	
TOTAL	\$ 6,929.20

TAX USER \$2,820 per year

Government expenditures (prior to Vocational Rehabilitation program at Goodwill Industries)

Hospitalization: San Antonio State Hospital for approximately 7 years, 6 months
10 days at a cost of \$21,217.50

TAX PAYER \$140.40 per year

Employed at \$1.25 per hour, \$50.00 per week or \$2,600 per year.

TOTAL - \$140.40 per year

Amount expended will be repaid in approximately 2 years and 4 months

NET GAIN TO SOCIETY	<u>\$2,960.40</u>
Yearly Savings of	\$2,820.00
Yearly Payment of	<u>140.40</u>
TOTAL	<u>\$2,960.40</u>

Case No. 71273

Age: 47

Sex: Female

Disability: Epilepsy

MAX USER: Average per year \$1,159.83

Government expenditures (prior to Vocational Rehabilitation Program at Goodwill)

Welfare:	August thru December 1960...	\$ 430.00
	January "	1961.... 1,132.00
	" "	" 1962.... 1,272.00
	" "	" 1962.... 1,272.00
	July "	" 1964.... 462.00
	January "	" 1965.... 1,620.00
	" " September 1966....	771.00
	Total	\$6,959.00

At current eligibility/payment tables, monthly welfare benefits would amount to about \$190 plus Medicaid and Food Stamps (\$144 worth for \$58) thus the present net gain is actually greater than reflected.

VOCATIONAL REHABILITATION COST

Training: Commercial Sailing for 3 months	\$120.00
State Maintenance	120.00
Total	<u>\$240.00</u>

MAX USER: \$45.00 per year

Employed at \$1.35 per hour, \$54.00 per week or \$2,808 per year (5 dependents)

Currently earning \$2.20 per hour \$88.00 per week or \$4,576 per year (5 dependents)

Year	Tax Paid
1966.....	-0-
1967.....	-0-
1968.....	-0-
1969.....	-0-
1970.....	\$46.80
1971.....	\$46.80 (approximate amount to be withheld)

Amount expended for Vocational Rehabilitation will be repaid by 1974 or 5 years and 2 months after client began paying taxes.

NET GAIN TO SOCIETY \$1,206.63

Yearly savings of \$1,159.83

Yearly payment of	46.80
TOTAL	<u>\$1,206.63</u>

EXHIBIT B -1

GOODWILL INDUSTRIES
of Battle Creek, Michigan, Inc.

373 West Michigan Avenue 49017 965-0575



May 24, 1971

Mr. John C. Harmon, Jr.
General Counsel
Goodwill Industries of America Inc.
Washington, D.C. 20014

Dear John:

Thank you for requesting some comments concerning our Section 13 Workshop Improvement Grant.

We were extremely pleased to be able to increase our services to community handicapped people from 65 in 1969 to 179 clients in 1970. Clients referred by the Michigan Division of Vocational Rehabilitation were 64 and 167 respectively.

The Workshop Improvement Grant did exactly what it states it would do. It brought about increased quality of services by making a competent Director of Vocational Rehabilitation available to Goodwill Industries of Battle Creek, Michigan. Because of the programs which he developed so well we were able to hire an additional Work Evaluator to join our two Instructors and Secretaries who have been with us prior to the grant.

The average length of work evaluation and training programs for each client dropped from approximately 5 months to a little more than 2 months mainly through the use of work evaluation job samples administered by competent personnel. Where a work evaluation used to take 8 weeks it now takes 4. Two weeks in the "unit" with job samples and two weeks in 'in-plant' evaluation stations. This time savings alone would have allowed a doubling of potential clients served. Statistically we did more than three and a half times the number of clients in 1970 as in the preceding year.

For the most part, this was the result of a high level of co-operation and help through the Calhoun County District Office of Division of Vocational Rehabilitation. They were both appreciative and encouraging in our increased quality of services and have shown their interest by referring more clients to us for work evaluation and work adjustment training.

EXHIBIT B-2

Mr. John C. Harmon, Jr.
 Page 2
 May 24, 1971

The complexity of 'disabilities' has not gotten any simpler with the increasing population we are now serving. In some cases the problems are more difficult because of less experience and information is available for helping these people. As you perhaps noted, the 'disabled disadvantaged' population of clients increased sharply. This has tested the validity of our job samples to serve both the retarded and the intelligent but 'socially deprived' population of our community. It has caused us to seek diligently new ways of meeting the challenges of our very diverse population.

We have added another member to our staff for assisting in 'in-plant evaluations' and spending half time on job readiness training for placement. This gives us a staff of 5 plus 1 1/2 secretaries, not including any supervisory or administrative personnel who are sometimes used to oversee and assist in vocational training experience in our plant.

A new service which has been an outgrowth of our 'disabled disadvantaged population' has been a basic literacy education program co-operatively sponsored through DVR and WIN. This program is sixteen weeks long, half time, for initial reading and writing skills. Most of the clients have absolutely no reading skills when they enter this program. It is new, but the experiences so far have been very gratifying, particularly when a hostile young man who was interested in small engine repair training could not advance without being able to read the instruction manuals. He has now learned to read well enough, even in a few short weeks, to be able to continue training. This has demonstrated the value of an immediate reward for his efforts. The program uses the Initial Teaching Alphabet and, so far, there have been no problems in the clients moving to the standard alphabet. There are currently 10 clients in the program and over 20 waiting. We have employed a half-time school teacher for these responsibilities.

Not only has the Workshop Improvement Grant added to our rehabilitation service, but it has also helped us with a Contract Procurement Supervisor who has done a great deal to interest local industries in providing our handicapped people with industrial types of work here at Goodwill while they are in the process of gaining Work Experience. We are looking forward to this being one of the largest single areas of growth in providing real work experiences for both transitional and terminal clients. It is here that we see the vital need for the Wagner O'Day Act to be passed as soon as possible.

EXHIBIT B-3

Mr. John Harmon, Jr.

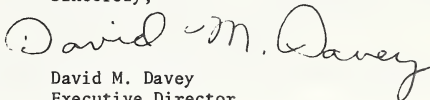
Page 3

May 24, 1971

Our clients need work evaluation to determine their skills and interests. They, also, need work adjustment training to teach specific jobs and the necessary preparation for that "all important job interview." But all of this leads to one goal and that is placement onto jobs in the community, and if that isn't possible, into sheltered employment. They need time to gain "Work Experience" while they are here.

Our only goal is to see as many handicapped people as possible achieve their maximum vocational potential thereby becoming participants in our working society.

Sincerely,

A handwritten signature in cursive script that reads "David M. Davey". The signature is written in dark ink and is positioned to the right of the typed name.

David M. Davey
Executive Director

DMD/er

SECTION 12 FUNDING

Mr. HARMON. Now, we would suggest that in section 12, that some \$10 million be there.

I know that we never did reach that. I think about \$4 or \$5 million is the most that was ever appropriated, and that was back in 1967, but the need is great, and if you have ever been in one of these facilities, you know what it means to handicapped people, to have proper surroundings, to give kind of a lift, and the kind of equipment that is necessary to lead to the full rehabilitation of the individual.

Now, in section 13 we would suggest that that offer be at least \$15 million, because that includes very valuable areas of special training projects, to not be confused with other training ideas, and in three of these cases that we gave you in the statement, they were people who went through one of these special training projects.

Now, those projects provide for training allowance along with the training.

This is the thing we feel is vitally necessary, and at the present time, it really is not available under any other section in the law, and we have a problem where we are able to pay them what they produce, but this is not enough in the early stages to meet their living costs.

Senator MAGNUSON. Well, training is very important to us, because there is always a shortage of people that are needed, and in all of the Goodwill units, just like these people we just saw, we just have to encourage the training of more people.

Mr. HARMON. Certainly, and research money, we think it should be a sum of \$30 million, and we believe this because we have two research projects.

One of them is to develop a uniform accounting system, which has gotten to the point now where it is being tried out in two State agencies, that is rehabilitation agencies.

Senator MAGNUSON. These cases are in different places?

Mr. HARMON. Those four cases are in one Goodwill. We can get those kind of figures even more closely, for example, in Milwaukee, Goodwill, it is really unbelievable what this uniform system has accomplished.

Now, this is the health and welfare standard developed by the Rockefeller study.

The united way, nationally we are in conversations with them to adopt a system and to in turn put it into the local united fund, and so that we are witnessing a combination of cost effectiveness advancements in both the private sector and the public sector, as a result of monies spent in research down here in one of these HEW projects.

Senator MAGNUSON. Well, we will take a look at all this, and now just tell me one thing.

Goodwill gets a grant from the rehabilitation service usually for a specific project or a person, how does it work?

Mr. HARMON. There are two types. We get grants, which are under 13, improvement grants, under 12, construction grants, and under 4(a) (2) expansion grants.

Now, on the other hand, we provide services which the State agencies pay us for.

Senator MAGNUSON. But they in turn, the State agencies get a matching grant from the Federal Government?

Mr. HARMON. That is right.

Senator MAGNUSON. Is that person by person?

Mr. HARMON. Yes, it is. In other words, the counselor refers it, and we believe rather than the State agency putting in the facility, it is better for the voluntary agency to put it up, and to provide the service for these people so that we are talking about delivery of services.

Senator MAGNUSON. Of course, with Goodwill, there is hardly any estimation of how much the private sector helps out in this field.

I am familiar with that. Your reputation is such that you do not have too much trouble considering all of the other demands on you people, but I think the big thing you have got to point out here in this system, here is case number one, this fellow was in the State hospital for 11 years at the cost of \$31,000 to the State, and the cost of Goodwill was for a total of \$5,000, and he is now employed paying taxes at \$276 a year, and the institution is relieved.

We thank you very much for your testimony, Mr. Harmon.

We are sorry we kept you so long.

Mr. HARMON. I thank you for having the opportunity to testify, Mr. Chairman.

STATEMENT OF E. B. WHITTEN, NATIONAL REHABILITATION ASSOCIATION, WASHINGTON, D.C.

VOCATIONAL REHABILITATION

Senator MAGNUSON. Our last witness for this afternoon is Mr. E. B. Whitten of the National Rehabilitation Association.

We are glad to hear from you, Mr. Whitten.

Mr. WHITTEN. Thank you very much.

Mr. Chairman, members of the subcommittee, the National Rehabilitation Association is a national organization of 33,000 individuals and 600 agencies, all of whom have a major concern for the care and rehabilitation of handicapped people.

The membership of the association is both professional and lay.

It includes large numbers of administrators, counselors, and physicians, and small numbers of social workers, physical therapists, occupational therapists, speech and hearing pathologists, and other professionals active in rehabilitation.

Its lay members are public-spirited citizens who have an interest in the rehabilitation of handicapped people in their respective communities and support the National Rehabilitation Association as one method of achieving their aims of more comprehensive and better services for handicapped individuals.

Members of the association work in the State-Federal rehabilitation programs and other State and Federal agencies, and so forth.

Today, we are speaking to that part of the appropriation bill that has to do with programs which are administered by the Rehabilitation Services Administration of the Social and Rehabilitation Service of the Department of Health, Education, and Welfare.

JUSTIFICATION OF PROGRAM

Mr. Chairman, we shall not attempt a lengthy justification of vocational rehabilitation as a program to be supported by the Congress of the United States.

We realize that officials of the Department of Health, Education, and Welfare have already appeared before you and have presented their own justifications for the sums being sought.

I will say, however, that the State-Federal vocational rehabilitation program is recognized throughout the country as one of the most successful, if not the most successful, State-Federal program in the human service field.

Its accomplishments have been and continue to be significant and measurable at both State and Federal levels.

It has been administered efficiently, and its program have the general support of the public.

During the 50-year life of this program, 2,800,000 physically and mentally handicapped people have been assisted in rehabilitating themselves.

In fiscal 1970, a total of 266,975 handicapped individuals achieved rehabilitation under this program. The total expenditure on rehabilitation services that year, including all personnel and administrative cost, was \$557,706,000, or an average cost for each case rehabilitated at slightly more than \$2,000.

The cost figures include all sums expended on diagnosis and evaluation and rehabilitation services for all individuals served in the program, whether or not services resulted in rehabilitation.

When one considers these figures, he is bound to recognize that vocational rehabilitation is one of the Nation's largest manpower programs, if one wants to refer to it as such.

In spite of the fact that individuals who are served are physically or mentally handicapped, its expenditure per successful case is less than that of any other comparable program.

A statement is being appended to this testimony, which will show the basis upon which it is said that the cost effectiveness of this program is greater than any other program with similar objectives.

The National Citizens' Advisory Committee on Vocational Rehabilitation, reporting in 1968, summarizes the situation in these words:

We are convinced that the rehabilitation movement in the United States represents one of the greatest achievements of our culture.

It stands as a monument to the humanitarian instincts of the American citizen, and, at the same time, provides practical ways for disabled persons to achieve satisfying, productive lives.

Referring specifically to the State-Federal vocational rehabilitation program, the report continued:

We liked what we saw when we looked at the public vocational rehabilitation program. There can be no doubt of the program's success. From the time of its inception in 1920 . . . the program has been the literal salvation of millions of disabled Americans. Evidence of its success is seen in the constantly increasing numbers of the disabled who are rehabilitated each year, in the economic gain resulting from the investment of the American dollar, and in the extent to which other government programs have adopted rehabilitation ideas, techniques, and methods.

GOAL ORIENTED

Much of the success of the vocational rehabilitation program is the result of its goal orientation.

The goal in every case is vocational rehabilitation. While many services are provided in the process of an individual's rehabilitation, there is never any doubt of the goal.

In addition, success or failure is measured solely on the basis of whether or not the goal of employability is achieved.

The comprehensive nature of the vocational rehabilitation legislation, which permits the agencies to provide almost any service that would be required by an individual in the course of his rehabilitation, and the flexibility of the agencies in working with other public agencies and with private agencies has contributed immeasurably to its effectiveness.

Another important element in the success of the program, has been that it has recognized all-encompassing nature of rehabilitation, and has developed a balanced program to make its services available and effective.

It has been recognized that there must be people to provide the services, facilities in which services are to be provided, research to point to better methods and techniques, and funds to pay for the services provided to the client.

Accordingly, support has been sought and secured for the basic State grant programs, for research and demonstration, for training of personnel, and for rehabilitation facilities.

The budget now being considered by this committee would affect detrimentally all aspects of the vocational rehabilitation program. We shall discuss them individually.

SECTION 2, GRANTS TO STATES

Section 2 supports the grants to States for the provision of basic vocational rehabilitation services. The appropriation authority in the Vocational Rehabilitation Act of 1971 is \$700 million.

OMB has recommended an appropriation authority of \$530 million for 1972. This is an increase of less than 3 percent over the appropriation authority for the current year.

An appropriation of \$518 million is recommended. This is also an increase of \$15 million, or less than 3 percent. It need not be emphasized before this committee that a 3-percent increase will actually result in a program decrease for 1972, since the rate of inflation of rehabilitation costs has been fully twice this amount.

One cannot look at this in any other way than that the program will be expected to shrink and to lose effectiveness with this appropriation.

It is true that the budget includes an additional sum of \$23 million under section 4(a) (2) of the act to support an expanded program for the rehabilitation of public assistance recipients.

There is already underway a substantial program in this area.

The budget does not indicate how such an appropriation would be allocated among the States or what criteria would be used to determine the kind of program a State would be expected to develop to secure these funds.

In our judgment, the dependence for an on-going basic vocational rehabilitation program is the section 2 appropriation, and this is the appropriation with respect to which Congress should be primarily concerned, although funds earmarked for specific purposes can be helpful.

Our recommendation, Mr. Chairman, is that the appropriation authority for 1972 be \$600 million and that the appropriation be \$575 million, this latter amount being necessary in order to match State funds that will be available during that year.

With an appropriation of \$575 million, based on an allotment of \$600 million, this program can make orderly progress toward attaining the goals which we believe Congress has in mind.

Certainly, the additional funds expended on this program may be expected to return more in value to the taxpayer than a comparable amount of money would in any other program with a comparable objective.

This additional appropriation should result in the rehabilitation of approximately 30,000 more individuals than can be anticipated under the OMB recommendations.

TRAINING

As we have already indicated, Mr. Chairman, the recruitment and training of personnel to be used in the rehabilitation process must go hand in hand with the availability of funds for the purchase of rehabilitation services.

With respect to such training funds, the 1972 budget would result in disaster. The current appropriation for training is \$27,700,000, this being \$4 million less than the all-time high.

The administration proposal would reduce this appropriation to \$14,650,000, a reduction of over \$13 million or 48 percent.

No adequate explanation of this cut has been given. The budget instrument itself merely states that the money to be appropriated should be used to support training in vital areas in which there are no funds or limited training funds available.

Under the Vocational Rehabilitation Act, training is supported in the following areas: rehabilitation counseling, rehabilitation medicine, speech pathology and audiology, social work, physical therapy, occupational therapy, mental retardation, rehabilitation facility administration, prosthetics-orthotics, and vocational evaluation.

In addition, small sums go into short-term training and to support vocational rehabilitation agency training programs.

It is evident that with a 48-percent reduction these training programs would be wrecked.

The administration has made no announcement, as far as we know, with respect to which programs would be eliminated, which cut, how much, and so forth.

The administration's explanations of this reduction are vague and inconsistent. In some instances, the cut has been justified on the basis that State rehabilitation agencies have used section 2 funds for training.

In other communications, the administration has referred vaguely to "new initiatives" on the part of the administration which make the cut necessary.

In our judgment, the proposed reduction is no more or less than a meat ax approach designed to save budget dollars. We ask, Mr. Chairman, for a restoration of the full amount of the reduction or an appropriation of \$27,700,000 for the year.

RESEARCH AND DEMONSTRATION

The research and demonstration program under the Vocational Rehabilitation Act has made an important contribution to the development of improved methods and techniques of delivering vocational rehabilitation services.

Currently, this appropriation is \$31,635,000. The President's budget would reduce this by \$6,688,000, leaving an appropriation of \$24,937,000.

Again, no reasonable justification for this reduction has been made. The result of the cut would be that very few, if any, new research and demonstration programs could be approved during the 1972 year.

This action will bring to a grinding halt this important program. It will mean that research and demonstration staffs, recognizing no future to research and demonstration in rehabilitation, will seek new employment.

It would take years to recover from this blow. Mr. Chairman, we recommend a restoration of the full amount of the reduction.

FACILITIES

For several years, we have been greatly disturbed by the attitude of the administration with respect to appropriations for rehabilitation facilities.

The current appropriation for such facilities is \$4,140,000, practically all of which has been earmarked for the development of three or four rehabilitation facilities.

The President's budget contains only \$550,000 for this program, this sum to be used in staffing facilities already established under the act.

This program established under section 12 of the Vocational Rehabilitation Act was intended to support a nationwide program for the development of rehabilitation facilities.

There is a documented need for at least \$20 million for 1972. It is time for Congress to decide whether or not this section of the law will be used for the purpose for which it was intended.

All States need rehabilitation facilities, not just a few of them.

There should be developed as soon as possible at least 75 or 100 comprehensive vocational rehabilitation facilities such as the ones found at Institute, W. Va., Johnstown, Pa., and Fishersville, Va., and the one under construction in Chicago.

We are recommending an appropriation of \$20,000,000 for this item.

VOCATIONAL EVALUATION AND WORK ADJUSTMENT

The 1968 Vocational Rehabilitation Act amendments included a new program of vocational evaluation and work adjustment services for disadvantaged individuals, including the handicapped (sec. 15).

This program was to be administered by the State vocational rehabilitation agencies to serve their own clients and as a service to the clients of other agencies who so badly need this kind of service.

The passage of this legislation was hailed as one of the most significant actions of Congress during that particular year, as related to human services development.

The previous administration recommended for 1969 an appropriation of \$10,000,000 to start this program, far less than was authorized.

The new administration deleted this from the budget without explanation.

The current budget still does not contain any appropriation for this purpose. Adequate vocational evaluation and work adjustment services are absolutely necessary to success in any rehabilitation or manpower program, assuming work to be an objective.

The high rate of success on the part of the State vocational rehabilitation agencies is attributable in large measure to the fact that they have recognized this and insist upon much more comprehensive evaluations of their clients than is true of any other agency.

This legislation is written as a formula grant program. The appropriation authority for the 1972 fiscal year is \$100 million. An appropriation of at least \$20 or \$25 million would be needed to make a formula grant program effective.

In our judgment, the Committee could do nothing which would do so much to improve the quality and effectiveness of rehabilitation, manpower, and welfare programs, as they relate to efforts to help such individuals prepare for and secure employment, than to properly implement this section of the law.

It is a most puzzling situation that the administration has not made recommendations along this line since it seems to be absorbed with the idea that everyone should be encouraged to work and assisted to prepare for work.

DEVELOPMENTAL DISABILITIES

In 1970, Congress passed the Developmental Disabilities Services and Construction Act.

This legislation supersedes the legislation under which appropriations had been made to support programs for the mentally retarded.

A significant aspect of this legislation is that it extends the scope of the program to cover individuals impaired by cerebral palsy, epilepsy, or other neurologically based diseases originating in childhood.

Under the previous legislation the program has been confined largely to construction and staffing of various types of facilities.

Under the new law, an opportunity is provided for filling gaps that exist in serving the specified classes of handicapped individuals.

This legislation was widely supported, enthusiastically enacted by Congress, and people concerned with mental retardation, cerebral palsy, epilepsy, and so forth, are looking forward with great anticipation to its implementation.

The administration has virtually completely ignored this new legislation in its proposals for 1972. It recommends for the new law almost precisely the amount of money available for 1971 under the old law.

The new law specifies that not more than half of an allotment to a State can be used for facilities. This means that the facility program will be practically nil, and very little else can be done with the small amount of money available.

The legislation is now written as a formula grant program. We strongly recommend that \$40 million be appropriated for formula grants. This sum is needed to make grants to individual States large enough that any substantial impact can be made upon the problems the legislation is expected to address itself to.

COST EFFECTIVENESS

Mr. Chairman, in the National Rehabilitation Association we have always maintained that the greatest benefits of rehabilitation are in what rehabilitation does to the human spirit.

The assurance of the quality of opportunity, the assurance of ability to make one's own way dependent upon no one, the ability to be a contributing taxpaying citizen of the country, does something to the morale of an individual which is hard to describe.

Second, we have felt that the values of rehabilitation are in a great many instances preventive in nature.

In other words, a young handicapped individual, by receiving rehabilitation services early, frequently is prevented from having his disability compounded and his dependency increased.

It is gratifying, however, in addition to these things, to find that rehabilitation has the highest cost-benefits ratio of any program in this general field.

I am asking that a brief statement entitled "Rehabilitation—cost-benefits analysis" be made a part of the record at this point.

(The analysis follows:)

REHABILITATION - COST-BENEFITS ANALYSIS

Three cost-benefits analyses are available.¹ Each of these studies measures cost benefits in terms of the economic gain to society resulting from the increase in wages earned by disabled people as contrasted to the cost of providing rehabilitation services to the handicapped individuals.

The first of these studies, to be referred to as the RSA study, showed a cost-benefits ratio of 35 to 1, that is, the wages earned by the rehabilitation worker for the period of his work life expectancy was 35 times as great as the amount spent on his rehabilitation.

The second of the studies, to be referred to as the HEW study, showed the cost-benefits ratio to be 15 to 1.

A third study to be referred to as the Conley study, showed the cost-benefits-ratio to be 8 to 1, or somewhat less, if future earnings are discounted to make allowance for the future value of current dollars.

The HEW study (15 to 1) differs with the RSA study (35-1) because it did not attach any value to homemaking and other work at home, did not assume the 3% annual increase in projected earnings due to increased worker productivity calculated in the RSA study, and used higher mortality rates which resulted in fewer years of earning power for the disabled individual.

The Conley study was even more conservative. It used earnings the three months before beginning rehabilitation service as a wage base instead of earnings

the week before rehabilitation at which time the individual was more likely to be unemployed, it added to the cost of rehabilitation by estimating the number of repeaters in the program, included an estimate of the cost of services provided by other agencies, and added 20% to the cost of rehabilitation services to cover expenditures for research and training, which are not charged as rehabilitation services in agency accounting procedures. The author admits that he may have been overly conservative.

All three studies are equally firm in their conclusions that society benefits economically from expenditures on vocational rehabilitation. Significantly, the cost-benefits ratio for rehabilitation services is more than twice as high as that of any other program with similar objectives,² when the same formula is used for calculations. Also significant is Conley's conclusion that the cost-benefits ration is probably as high or higher for the most severely handicapped, older, socially and economically deprived client as it is for the younger, less severely disabled client.

All of the studies referred to above deal with national data. A recent study conducted by the University of Wisconsin's Regional Rehabilitation Research Institute in Wood County, Wisconsin based on a project aimed to saturate the county with vocational rehabilitation services in a way to reach all handicapped persons, showed that every aspect of this project attained a cost-benefits ratio of at least 20 to 1.

1 An Exploratory Cost-Benefits Analysis of Vocational Rehabilitation prepared by the Division of Statistics and Studies of the Vocational Rehabilitation Administration, August 1967.

Human Investment Programs - Vocational Rehabilitation, issued by the Office of Assistant Secretary for Planning and Evaluation of the Department of Health, Education, and Welfare, December 1967.

A Benefit-Cost Analysis of Vocational Rehabilitation Program by Ronald A. Conley appearing in The Journal of Human Resources, Spring 1967, Volume IV, No. 2.

2 Economic Analysis and Efficiency in Government - Report of the Subcommittee on Economy in Government of the Joint Economic Committee, Congress of the United States, February 9, 1970, page 40. Using the most conservative estimates of vocational rehabilitation cost effectiveness, this report gave vocational rehabilitation a cost-effectiveness ratio more than twice that of any other program in the general manpower and manpower-related field.

1972 BUDGET REHABILITATION SERVICES ADMINISTRATION PROGRAMS (In Thousands)

Program	1970 Actual Exp.	1971 Approp.	1972 Pres. Budget	Contrast
<u>Vocational Rehabilitation Act</u>				
1. Allotment Base Sec. 2	500,000	515,000	530,000	+ 15,000
2. Grants to States Sec. 2	436,000	503,000	518,000	+ 15,000
3. Innovation Sec. 3	3,200	3,200	----	- 3,200
4. Expansion Grants Sec. 4(a) (2) (A)	9,611	15,121	38,660	+ 23,539
5. New Careers & Contr. with Ind.	1,350	3,000	3,000	----
6. Research Sec. 4	29,764	31,635	24,937	- 6,688
7. Training Sec. 4 & 7	27,700	27,700	14,650	- 13,050
8. Rehab. Fac. Constr. Sec. 12	2,274	4,140	550	- 3,590
9. Fac. Improv. & Tng. Serv.	9,899	11,300	10,000	- 1,300
10. Special Rehabilitation Ctrs	9,761	10,275	10,275	----
<u>Developmental Disabilities Act</u>				
11. Formula Grants (inc. Construction)	----	----	11,215	+ 11,215
12. Hospital Improvement	8,390	8,300	6,500	- 1,800
13. Construction	16,870	11,220	----	- 11,220
14. Initial Staffing	10,990	9,275	10,075	+ 300
15. Service Projects	4,151	5,500	7,000	+ 1,500
<u>Other</u>				
16. Rehab. Facilities Hill-Burton	9,100	9,100	15,000	+ 5,900
17. Deaf-Blind Center	570	3,100	600	- 2,500
18. Pres. Comm. Employ. Handicapped	575	706	726	+ 20

COST-BENEFITS RATIO IN VOCATIONAL REHABILITATION

Mr. WHITTEN. It is notable that although the studies of cost effectiveness that have been made vary somewhat in the approach they take, the results of the studies reach the same conclusions, that is that the cost-benefits ratio in vocational rehabilitation is at least twice as high as similar cost-benefit ratios in any other program the purpose of which is to help handicapped or disadvantaged individuals prepare for, secure, and hold employment.

This fact, which is amply documented in the brief statement, should be a further justification to this committee to see that rehabilitation programs continue to expand, so long as they remain at their present rate of effectiveness.

I would like to further point out, Mr. Chairman, that in rehabilitation, without any doubt in our minds, we say it is the best, most effective and most economical program supported by the Federal Government to help handicapped people most of whom are the disadvantaged in this country, and this makes them become supporting individuals.

I could document that if we had time, but I will not try to do it.

I think this is generally accepted.

This rehabilitation program has become a big one. It is rehabilitating now 275,000 people a year, and this case which Mr. Harmon gave you is being repeated tens of thousands of times in every State in this Union, and you fortunately in the State of Washington have a very excellent program, and in New Hampshire, Senator Cotton, you have one of the experiments on how the rehabilitation agency can make a contribution in the rehabilitation of all welfare recipients, whether or not they are physically disabled.

They continue to grow and make an increasingly effective contribution to the welfare of the people in this country, and we will have to have people to do the work, we need research to lead the way, facilities in which the rehabilitation can be done, such as Goodwill Industries, and many others, and we need money to pay the salaries of the people.

We have made some very specific proposals along this line.

You put your finger in the last few moments on a very, very important item, that is, unless the State-Federal program of vocational rehabilitation is able to have the money to buy the services that are provided by the facilities, the personnel services that are provided by the speech and hearing people, it all comes to nothing.

In many places in this country it costs \$20 per hour to get speech and hearing therapy. Somebody has to pay the bill. Usually the handicapped person is not able to pay it.

Now, we are asking you to increase the appropriation for the basic State-Federal program from \$518 million, which is in the President's budget, to \$575 million.

This would require some raise in the allotment base, which I have documented.

Now, Mr. Chairman, our first priority, and we have had a group of 15 or 20 organizations working together on this, all of us agree, this is

the most important single thing, the committee could do is to strengthen the program of rehabilitation in the country, and that is through this fund that is used to buy the services to pay the hospital bill, to pay the training bill, and so forth, for the handicapped person.

Now, second, as I said, we have to have facilities. Now, I was very much interested here a while ago in listening to the plea for the facility in Chicago. This is a good facility. It is worthy, but at the same time, section 12 of the Vocational Rehabilitation Act was projected to finance a nationwide system of rehabilitation facilities, and Northwestern University and the Chicago area is by no means the only place in the country that needs such a facility.

SRS has documented \$40 million worth of needs for such facilities in the next year, but people have sort of gotten to the point where for 3 or 4 years there has been practically nothing, and all that has been appropriated has to go to one, two or three facilities, where we have gotten adjusted to the fact of no facilities for the present time.

With respect to training, I do not want to add to what these other people have said.

Mr. Chairman. I think you and Senator Cotton know that the administration has failed to justify any decrease in training and research funds in rehabilitation.

You see the letters like I do. People write and ask why.

They come back and say that new initiatives of the administration cause a rearrangement of priorities. What does that mean? I don't know what it means. I just know there is no money anywhere else in the budget to replace the money that would be less in these training and research programs.

I know you have heard enough testimony on training and research today. I just want you to know that we are very sensitive to the position taken by Doctor Lowman and by a number of other people.

Now, Mr. Chairman, one other thing: The development of the disabilities bill has not had as much attention here today as I think it ought to.

This is new legislation you passed last year to broaden the mental retardation legislation. The administration this year in its budget, and this may have been passed after the original budgets were presented, were developed, but anyway, it has no appropriation to increase the size of this program, based on the new legislation, and so we are requesting a sharp increase up to \$30 million in that.

By the way, Mr. Chairman, in a formula grant program, the money will have to be divided between 25 jurisdictions, to have less than 25 or 30 million in the pot, it divides it up into such little pieces, it is almost a shambles of a program by the time you get the administrative setup and the advisory committee, and some States would not have anything left to serve the handicapped people, so it is almost futile to think about a \$10 million grant aid program in this country, so we are asking you to raise those.

We are glad to work with the committee in any way. We, through the years, have tried to take a total view of this rehabilitation program rather than coming in for just a specific area.

We have tried to look at the whole thing, and to balance our testimony in such a way that we can help you see the whole picture. We know it is complicated, and we appreciate the time you so laboriously put in on these hearings, and we thank you for your attention.

SUBCOMMITTEE RECESS

Senator MAGNUSON. Thank you very much.

We will recess until 10 a.m. tomorrow when we will resume with our final day of outside witnesses on the Labor-HEW appropriation bill.

(Whereupon, at 6 p.m., Thursday, July 15, the subcommittee was recessed, to reconvene at 10 a.m., Friday, July 16.)

DEPARTMENTS OF LABOR AND HEALTH, EDUCATION, AND WELFARE AND RELATED AGENCIES APPROPRI- ATIONS FOR FISCAL YEAR 1972

FRIDAY, JULY 16, 1971

U.S. SENATE,
SUBCOMMITTEE OF THE COMMITTEE ON APPROPRIATIONS,
Washington, D.C.

The subcommittee met at 10 a.m., in room S-128, the Capitol, Senator Norris Cotton, presiding.

Present: Senators Magnuson and Cotton.

DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE

NONDEPARTMENTAL WITNESSES

STATEMENT OF HON. WALTER F. MONDALE, U.S. SENATOR FROM MINNESOTA

SUBCOMMITTEE PROCEDURE

Senator COTTON. The subcommittee will come to order.

The chairman, Senator Magnuson, is delayed for a few minutes. He will be here undoubtedly before the first witness has completed his presentation.

We meet to continue to receive testimony on the Health, Education and Welfare appropriations for 1972 by public witnesses. Today is the last scheduled day for public witnesses and will complete 2 weeks of such hearings. Thus far, the subcommittee has heard an unusually large number of witnesses.

We have about 15 individuals scheduled for today which will make it necessary for the witnesses to keep their testimony brief and to the point so that we can hear all of you today.

We are very glad to welcome the distinguished Senator from Minnesota this morning. I understand he is going to introduce a witness. We are glad to have you with us.

INTRODUCTION OF DR. FRITZ KOTTKE

Senator MONDALE. Mr. Chairman, it is a great pleasure for me to be here this morning to present an old friend, Dr. Fritz Kottke, from the University of Minnesota, as a witness before your subcommittee.

Dr. Kottke is a professor and head of the Department of Physical Medicine and Rehabilitation at the University of Minnesota Medical School in Minneapolis. He also represents the American Academy of

Physical Medicine and Rehabilitation and the Regional Medical Rehabilitation Research and Training Centers.

I have long been impressed with the excellent work done under the program of rehabilitation medicine and particularly by the 19 research and training centers, one of which is headed by Dr. Kottke. Another one of these outstanding centers is located at the University of Washington where Dr. Justus Lehmann is in charge.

HEALTH RESEARCH TRAINING GRANTS AND FELLOWSHIPS

I intend to submit a number of recommendations to this subcommittee next week concerning various items in the HEW appropriations request of the President, which I deem to be inadequate.

At this time, however, I should like to comment principally on the shortsighted cutbacks in a variety of programs for training grants and fellowships in the health research field.

The outstanding record of U.S. medicine has been achieved only because we have invested heavily in research and training. The Congress last year had to resist administration proposals for cutbacks in research funds and, for the most part, this message has gotten through.

This year we must see to it that we do not mortgage our future progress by short-term savings in fellowship and training grants. These are the programs that produce the men who will achieve the new breakthroughs in the years ahead.

Dr. Kottke will be telling the subcommittee more about the need for such programs in the field of rehabilitation medicine.

REHABILITATION

As this committee knows well, the rehabilitation program pays for itself many times over. We can demonstrate that those restored to productive and taxpaying status through rehabilitation have returned manifold the costs required to rehabilitate them. And when we consider the human values of restoring the disabled and equipping them to be self-supporting, I cannot understand how we could balk at greatly expanding the support for this program.

I can think of no more eloquent spokesman for this extremely valuable program than Fritz Kottke. I hope the subcommittee will be able to adopt the recommendations which he is making this morning.

Senator CORTON. Thank you, Senator.

We welcome you, Dr. Kottke. You come well recommended.

Your friend, Senator Mondale, is a friend of ours and that is a sincere tribute from the Republican side.

Senator MONDALE. Thank you very much for those kind remarks.

Senator CORTON. You may proceed as you desire. If you want to put your statement in the record in full and then summarize it, you may. If you want to read it, you may. It is up to you.

STATEMENT OF FREDERIC J. KOTTKE, M.D., PROFESSOR AND HEAD,
DEPARTMENT OF PHYSICAL MEDICINE AND REHABILITA-
TION, UNIVERSITY OF MINNESOTA MEDICAL SCHOOL, MIN-
NEAPOLIS, MINN.

REHABILITATION

Dr. KOTTKE. Thank you, Mr. Chairman.

I appreciate the privilege of appearing before the committee. I appreciate the introduction of Senator Mondale. He has highlighted some of the things I wish to emphasize about the importance of rehabilitation and the cost effectiveness of rehabilitation. He has pointed out that I represent the American Academy of Physical Medicine and Rehabilitation, which is a group of specialists working in the field of rehabilitation medicine, and the 12 medical regional rehabilitation research and training centers which really were established by the act of Congress under Senator Hill when he was chairman of this subcommittee.

I would like to present the need for continuing support of this essential research and training program and rehabilitation medicine.

As Senator Mondale has pointed out, there has been some difficulty in even maintaining the level of its performance because of recommended cutbacks in funds and what I am requesting today is essentially maintenance of the level of appropriation for research and training rather than a \$25 million cutback that has been recommended by the Office of Budget and Management.

Senator COTTON. Pardon me. May I interrupt you for a moment.

When you refer to the \$25 million cutback, you are referring, first, to the reduction of rehabilitation training which was cut back from \$27.7 million last year to \$14.65 million this year?

Dr. KOTTKE. That is right.

Senator COTTON. What else are you referring to in the \$25 million? The community services from \$8.9 million cut back to \$4 million?

Dr. KOTTKE. No; under research.

Senator COTTON. Research centers?

Dr. KOTTKE. The research and training is divided into training at the Federal level. Training that was cut back from \$27 million to \$14.65 million, and research which—

Senator COTTON. Cut back from \$34.6 million to \$24.1 million?

Dr. KOTTKE. That is right.

Senator COTTON. Those are the three items that make up the \$25 million that you—

Dr. KOTTKE. The figures as presented in the budget get a little confused.

Senator COTTON. They confuse us and I have been on this committee for 12 years. That is why I was trying to nail it down for our record and in my own mind.

Dr. KOTTKE. \$10 million of the increase is under the training budget that you referred to; \$15 million relates to research and training as it is referred to by the committee here, I believe.

Senator COTTON. Are you also including the cutback in training of future personnel to keep this work going?

Dr. KOTTKE. That is right.

Senator COTTON. I can tell you we on this subcommittee who live with this problem, on both sides of the subcommittee, are thoroughly in sympathy with your presentation. We feel that rehabilitation is about the last place to cut back.

You are certainly talking to sympathetic ears when you talk to me because I have one in my own family that I am supporting. If 35 years ago he could have had done for him what you are doing for people he would be able to at least be leading a useful and fuller life. So, we are thoroughly in sympathy.

I think you might want to know that there has been a tendency for the last 5 years for the budget to do the cutting when they feel they must reduce items, to do it in the training of future scientists, and training of future teachers, and training of future social workers, and training of future physical therapists. So, the effect is not going to be apparent immediately.

That is just like a man painting his house and repairing the roof and letting the fire insurance lapse. Sometime later it is going to show up.

I don't want to try to do the testifying for you but I want to make sure these are the things you are emphasizing.

DR. KOTTKE. That is correct.

If we could talk about training first because you have made the point very well.

Table II of the prepared report you will notice the training was cut back from 1969 when the total training was \$31.68 million, back to last year when it was \$27.6 million. This year because of the training program in social work that didn't succeed, the Social and Rehabilitation Service acknowledged they would reduce that training by about \$3 million and requested \$24.65 million.

The Office of Management and Budget cut that by \$10 million more. We are requesting very urgently, for the reasons you have stated so eloquently, that this be restored to \$24.65 million in this training grant to support university training programs and these university training programs were really established by Federal funds.

The needs for the kinds of service you recommended were recognized by the Federal Government before they were recognized by the State governments. The welfare costs were recognized by Federal authorities, Federal institutions, before the State institutions.

It was this Federal funding that made it possible for the universities to undertake and expand these programs.

In addition, this covers traineeships as you see here in the amounts which were \$18 million in 1969 down to \$16 million in 1971. These have been cut progressively over the last 4 years so that now they represent about one-half of what they were before and if there is a further \$10 million cut this cuts the traineeship support in half.

I can speak especially for the physiatrists, specialists in physical medicine and rehabilitation. We would not have physicians specializing in this field where there is need if it were not for the traineeships, the cost of support in the 3 years of training that is necessary is so high and this turns out to be a field of relatively small financial return.

The assurance of training support is one of the ways to attract young men into the field of rehabilitation medicine where we have the need.

So that, I would like to emphasize to the committee that what we are asking for here is a preservation of what we had last year. You will notice it is slightly less than we had last year. But the \$24.65 million is nothing more than maintaining what we have done in the past and it is not meeting the expanding need for rehabilitation services under the proposed health insurance programs of the Government.

Senator HUMPHREY. Good morning, Dr. Kottke.

Dr. KOTTKE. Especially I am honored with Senator Humphrey who was instrumental in setting up the regional rehabilitation research and training centers about which I would like to speak next because I think that these centers for which we are asking a \$6.58 million increase this year have really changed the practice of rehabilitation medicine and changed the practice of entire medical care in this country by demonstrating that not only diagnosis and acute care is necessary but also that you have to rehabilitate people so that they can return to normal livelihood again and this needs to be made a part of the general practice of medicine.

So that, for these special rehabilitation and research training centers we are asking that a budget of \$16.58 million be established.

Senator COTTON. In order that we have this clear, you are now talking about special centers which last year was \$14,918,000 and this year the budget recommendation is \$12,375,000?

Dr. KOTTKE. That is right.

Under that budget, there is \$10.275 million for the regional rehabilitation research and training centers. To that \$10.275 million we are requesting an additional \$6.58 million.

Senator COTTON. You may proceed.

Dr. KOTTKE. The reason for this is that these centers have not had an increase in budget from the \$10.275 million since 1968. Each year since then there has been about a 10-percent increase in the cost of medical care and the salaries of people in hospitals and other costs so that over that 4-year period there has been a 35- to 40-percent attrition in what can be done with the money.

We have cut back in the size of our programs, cut back in our research, cut back in our services to meet this need. We are asking for a 35-percent increase which is a \$3.58 million increase to offset the cost of living that has occurred in 4 years plus another \$3 million to further expand eight of the 12 centers to full comprehensive centers. The first of these centers was established 10 years ago. There were two of them then, one at New York University, one at Minnesota.

Since then, there have been two other centers which have become essentially fully funded centers at Baylor University in Houston, at the University of Washington at Seattle, although the University of Washington at Seattle still is underfunded by \$350 million a year.

It would require \$7½ million to make these 12 centers all fully supported centers. We are asking for less than half of that amount, about \$3 million this year for expansion of these centers which are located in the various regions throughout the United States.

Senator COTTON. You would like to have these tables appear in the record at the close of your statement?

Dr. KOTTKE. Yes.

Senator COTTON. They will so appear.

Knowing your distinguished Senators from Minnesota, Senator Humphrey, under whom I served on the subcommittee when I was a freshman, and Senator Mondale, I am not surprised to note that the University of Minnesota, of all these centers, got the biggest slice.

Senator HUMPHREY. Just sheer accident.

Senator COTTON. Incidentally, Senator Humphrey, would you like to have the doctor suspend while you put in the record what you want to say at the opening? I will be very glad to hear you.

Senator HUMPHREY. That is fine. He is doing so well on his own I don't want to becloud the issue.

I thought you were over in the other building, for some reason or other, and that is why I am late.

Senator COTTON. We were, but Senator Magnuson moved us over here. He will be here shortly.

Go ahead, Doctor. Forgive the interruption.

Dr. KOTTKE. You are quite right. Three centers received \$3.1 million a year. These are New York University, University of Minnesota, and Baylor.

The University of Washington Research and Training Center receives only \$950,000 a year. It is underfunded in terms of the plan we developed. Others are underfunded considerably—

Senator COTTON. Are you talking about Washington State?

Dr. KOTTKE. University of Washington at Seattle.

Senator COTTON. It is underfunded?

Dr. KOTTKE. It is underfunded.

Senator HUMPHREY. I wish you would repeat that when Senator Magnuson is here.

Senator COTTON. Let the record show—no; we won't.

Go ahead, Doctor.

Dr. KOTTKE. I would like to point out that initially there was an attempt nationally with the help of Senator Humphrey to establish a National Institute for Rehabilitation Medicine along with the other National Institutes of Health. We ran into the problem that we still run into, that people understand rehabilitation more in a health orientation than in an aggressive medical research organization because it is concerned with reducing disability, it is concerned with getting people off the welfare rolls. It is concerned with restoring the functions.

Consequently, unfortunately, the National Institutes of Health were not much interested in us then, and they are not much interested in us now. We are not on the forefront of basic research. We are in applied research and rehabilitation to take the medical knowledge that is known and apply it to people to get them back to self-sufficiency.

So, as a secondary type of program, but I think it has turned out to be an outstanding first leadership program, we established comparable centers, comparable small centers, to what you might have in the National Institutes of Health; first, in the few medical schools, NYU, and the University of Minnesota. This has developed into four schools, and we are now trying to get resources to develop into eight more. If we can get the support, we can expand the other eight centers, the smallest of which is just a pilot center at Northwestern University in Chicago, which last year had only \$220,000. That is RT-20 on table I.

You will note that in the training programs of these 12, I have data on only 11 of the 12 centers over the past 10 years—they have not all been in existence 10 years—120,000 people have received training. Of these, 12,000 have received graduate training or degree training, and 80,000 have received various kinds of postgraduate training or continuation of training, making more than 120,000 people trained in the course of the activities of these programs.

As these people are trained, patients also get medical care, and at the same time research is carried out on the problems of applied rehabilitation that we see in rehabilitation medicine.

If I could point out the significance of this, and again for a reason that may not be particularly obvious, I pick the University of Washington to show how its rehabilitation center——

Senator COTTON. It is too bad the chairman didn't get here earlier this morning.

Dr. KORTKE. But the rehabilitation center at the University of Washington is the only comprehensive rehabilitation facility west of Minneapolis and north of Denver or San Francisco. That includes Alaska. That is almost a quarter of the area of the United States that has one rehabilitation center underfunded.

Patients from that whole area have to go to Dr. Lehmann's department at the University of Washington in order to get comprehensive rehabilitation for individuals.

Probably more significant, students from that whole area have to go to the University of Washington to get the kind of training that you were talking about, Senator Cotton, in rehabilitation.

Consider, for example, in that whole area this is the only program providing training for physical therapists. It is the only program providing master of science degrees for occupational therapists, one of two graduate programs in rehab counseling, the only Ph. D. program in rehabilitation nursing, the only program providing training for engineers and clinical psychologists in rehabilitation.

The kinds of research that we have done have already had an impact on the practice of medicine. This is documented in the record more fully, but I would like to point out that I think maybe, as is one of the things that you have not realized, that the health maintenance organization which now the administration is pushing as the prototype organization of the future, came out of rehabilitation in Minneapolis from the work of Paul Ellwood.

Dr. Ellwood got interested in how you provide medical care to patients, rehabilitation care to patients. It became obvious that you could not have comprehensive rehabilitation without considering preventive medicine, total maintenance, restoration of the patient, and then continuing him at a standard high level of medical care.

In order to do this, what you need is a well organized, prepaid, contractual organization for total medical care; and he developed this then from a concept of how-do-we-pay for rehabilitation, to the program which has now been adopted or is being adopted by the administration to try to provide for the kinds of comprehensive health maintenance which all of us recognize today is the need at the present time and the direction in which we ought to be going for the future.

So that, I would like to point out to the committee that the development of these regional rehabilitation research and training cen-

ters has already had a major impact in changing the practice of all medicine, not only rehabilitation, that has been the bellweather in the development of rehabilitation training and research in medicine and for this reason needs this further support and expansion.

The next item I would like to refer to is the research and demonstration programs of SRS. These are essentially the only support for rehabilitation research in the Federal Government.

As I indicated before, the National Institutes of Health do not research in the same perspective we do, and consequently they do not fund for the kind of applied research that we need in rehabilitation. Only two-tenths of 1 percent of the budget of SRS is devoted to rehabilitation research projects. That is far too small an amount for development and expansion of a program as involved as SRS, which runs to \$12.8 billion in the proposed budget for next year, I believe.

You will also note that the amount of research that is supported by the National Institutes of Health, is far greater than the research support for rehabilitation.

We have three kinds of need in our research demonstration program. We need to develop the special spinal cord injury centers to take care of patients who are paraplegics. We are asking for \$3.5 million to start such a program. The cost of the spinal cord injury in medical care to the patients amounts to about \$65,000 for the patient. This does not cover his maintenance cost. It is estimated by the private insurance companies that the cost, the true cost, of a spinal cord injury is about \$350,000 per patient. If you consider that we have 60,000 to 100,000 spinal-cord-injury patients in the United States, you can see what this amounts to. The annual cost just of health care of spinal cord injury is \$2.4 billion.

At the present time, we do not have capabilities for adequate comprehensive care of spinal cord injuries from the time of injury to the acute care to try to prevent further damage to the spinal cord, the necessary surgery, acute maintenance, rehabilitation, the followup at home; and, as a result of this, we neither restore our spinal injured patients as well as we should, nor do we maintain them as well as we should, and the cost of that maintenance is higher than it ought to be.

These centers, again located in medical schools, would provide a training device, a research device, a way of upgrading and maintaining the care of these patients. The sum of \$3.5 million is requested for the establishment of rehabilitation engineering centers.

Several years ago, I think again under my good friend, Senator Humphrey, it was recognized that bioengineering was one of the things needed to be developed in medicine. The Congress did establish some funds for this. We need especially in rehabilitation where we are dependent on mechanical devices to substitute for losses, we need to have rehabilitation engineering centers that are developmental and training centers to work in this phase. For that we are asking \$3.5 million.

We are requesting an additional \$2 million for support of research and demonstration projects. This is the regular research projects program which has not had an increase for several years.

That, Mr. Chairman, covers the requests that we are making.

In closing, I would like to point out that the current investment for both training and research in rehabilitation or in SRS is less than one-half percent of the SRS budget. This is inadequate in any progressive organization for development and expansion and production of new methodology, and yet it is the recommendation this year by OMB that they cut that by another third.

We are recommending a restoration of \$25.58 million to be distributed, \$6.58 million added to the support of the regional rehabilitation research and training centers, \$9 million to support the research and demonstration program, of which \$3.5 million would be used to develop special spinal cord injury centers. And \$3.5 million would be to establish rehabilitation engineering centers, and \$2 million to support additional research projects.

Finally, in training, \$10 million be added to the budgeted amount of \$14.65 million to restore it to \$24.65 million.

Thank you.

PREPARED STATEMENT

Senator COTTON. Your full statement will be made a part of the record at this point.

(The statement follows:)

Representing the American Academy of Physical Medicine and Rehabilitation and the Regional Medical Rehabilitation Research and Training Centers established under the Social and Rehabilitation Service.

July 16, 1971

Mr. Chairman and members of the Committee:

Thank you for the privilege of appearing before your Committee today to present the need for support of research and training in the field of Rehabilitation Medicine.

I am Dr. Frederic J. Kottke, Professor and Head of the Department of Physical Medicine and Rehabilitation of the University of Minnesota Medical School in Minneapolis. I am appearing here today on behalf of the American Academy of Physical Medicine and Rehabilitation, which is the organization of physicians who specialize in Rehabilitation Medicine, and also on behalf of the Regional Medical Rehabilitation Research and Training Centers which have been established under the Social and Rehabilitation Service.

I should like to present the need for continued support of the essential research and training programs in rehabilitation medicine conducted under the Social and Rehabilitation Service, and indicate several areas in which there is urgent need for increased support as follows:

The special Rehabilitation Research and Training Centers established under S.R.S. by Congress have had a budget of \$10.275 million with no increase to meet increasing costs since 1968. An additional 35% is requested in order to offset the inflationary attrition which has occurred in these programs during that interval, plus an additional \$3 million to allow further development of these Centers, some of which are underfunded or only pilot centers at the present time. The total support requested for the Regional Rehabilitation Research and Training Centers is \$16.855 million.

To the proposed \$24.125 million budget for Research and Demonstrations it is requested that \$3.5 million be added to establish special Regional Spinal Cord Injury Centers, \$3.5 million to establish rehabilitation engineering centers, and \$2 million for support of rehabilitation research projects, for a total of \$33.125 million.

For training grants and traineeships it is recommended that the level of support be maintained at not less than \$24.65 million which was the amount requested by the Social and Rehabilitation Service for 1972.

Now, if I may, I should like to present to the Committee the reasons for these requests.

You are well aware that physical disability in many cases leads to loss of employment and poverty, affecting not only the disabled person but also his family. There is a close correlation between chronic disease or physical disability, impoverishment of the families, lack of education, crime, and delinquency. This problem of the socially, culturally and medically disadvantaged is one of the critical domestic problems which we face today. The cost of physical disability, therefore, is many times higher than the cost of acute medical and rehabilitative care. We must attack these problems on multiple fronts if we are to succeed in restoring these persons and their families to self-sufficiency and productivity in their communities.

The high costs of illness and physical disability have resulted in health care and health insurance becoming one of the major concerns of the Congress this year. All of the proposed health insurance bills, including the Administration's proposal for health care, contain provisions for catastrophic illness. Medical catastrophes are generally chronic physical or mental illnesses which eventually leave the patient and his family destitute and dependent on society. Financial support without rehabilitation services still leaves that family dependent.

You may be less aware of the fact that among physicians the only organized group of medical specialists who concentrate on the treatment of the physically disabled and the chronically ill are the specialists in rehabilitation medicine. Of the 334,000 physicians in the United States only 1,479 or 0.44% are specializing in rehabilitation medicine. When you compare that proportion of physicians trained to render rehabilitation services to the 10% of our total population who have physical disabilities and chronic diseases requiring the services of rehabilitation medicine, you see that we have roughly 5% of the physiatric services which are needed, and it becomes readily apparent that persons with physical disabilities have considerably less availability of health care than do other persons in the United States. Since chronic disease leads to the catastrophic problems of poverty and its attendant social disadvantages, there is an imperative need, not only for support, but for expansion of research and training in rehabilitation medicine if we are to develop the capacity to cope with these current problems.

I respectfully request this Committee also to consider the fact that Rehabilitation Medicine has developed almost entirely as a federally-initiated and federally-supported program over the past 20 years. Rehabilitation Medicine is a relatively new specialty which developed to meet the needs of those persons who were disadvantaged due to severe physical handicaps.

The physiatrist, who is the specialist in rehabilitation medicine, achieved recognition as a medical specialist only in 1948. At that time there were less than 400 physicians specializing in Physical Medicine and Rehabilitation. When Miss Mary Switzer became the Director of the Office of Vocational Rehabilitation 20 years ago, she also became the advocate and inspiration for the development of comprehensive medical rehabilitation services. Under her energetic and enlightened guidance this program expanded and grew. The research and training programs were developed which provided training grants in the various rehabilitation professions, traineeships to persons entering these professions, and research and demonstration grants to study and develop the various aspects of rehabilitation. Ten years ago Congress initiated the Regional Rehabilitation Research and Training Centers which provide comprehensive, integrated research and training programs at selected medical schools throughout the United States. Virtually all of the support for both the professional training programs and for research in rehabilitation has come from this Federal agency--the Office of Vocational Rehabilitation, the Vocational Rehabilitation Administration, and the Social and Rehabilitation Service as they progressively developed under the guidance of Miss Switzer. There has been no other significant source of Federal funds. The states have played only a minor role in supporting the development of these programs, probably not more than 25 to 30 per cent of the costs of training and none of the costs of research. It is obvious therefore that unless time and planning allow for an

alternative source of funding, reduction of the support for research and training in rehabilitation medicine under the Social and Rehabilitation Service will result in a profound reduction of these programs. Failure to meet the increased costs due to inflation is resulting in constriction of these programs at the universities in the face of a rapidly increasing need for services. Reduction of the previously budgeted support of research and training will lead to collapse of these university-based programs from which new personnel and new methods for rehabilitation must come.

The Research and Training Centers. For the special Regional Rehabilitation Research and Training Centers the amount of \$16.855 million is requested for 1972. These Centers have played the key role in establishing that rehabilitation medicine is an integral part of comprehensive medical care. Through these Centers, which are located in medical schools, it has been demonstrated that comprehensive medical care does not exist unless there is rehabilitation medicine to restore the capacity of the patient to live normally again. The integration of diagnostic services, acute medical and surgical care and rehabilitation medicine has had a profound effect in reducing chronic illness and the prolonged convalescence or disability which all too frequently follows acute illness. It has changed our attitudes toward management of health services. Even the concept of Health Maintenance Organizations is an outgrowth of the Rehabilitation Research and Training Centers.

The first two Regional Medical Rehabilitation Research and Training Centers were established at New York University and the University of Minnesota in 1961. The next year two more were established at Baylor University Medical School, Houston, and the University of Washington in Seattle. The first three Centers are currently funded at \$1,300,000 per year but the University of Washington only receives \$950,000 per year. In subsequent years eight more Regional Medical Research and Training Centers have been established, located at Emory University in Atlanta, Tufts University in Boston, Temple University in Philadelphia, George Washington University in the District of Columbia, University of Colorado in Denver, University of Southern California in Los Angeles, University of Alabama in Birmingham and Northwestern University in Chicago.

The Research and Training Centers are contributing to the development of rehabilitation medicine through applied research on problems encountered in the clinical rehabilitation programs. Numerous research questions arise out of rehabilitation of patients, varying from development of methods for treating patients, methods for measuring patients' functions and methods for providing rehabilitation services, to studies of the effectiveness of rehabilitation services, studies of costs of rehabilitation, or research on methods of storing and retrieval of information. In the 10 year period from the time the first RT Center was initiated a total of 1150

research studies have been undertaken. Approximately 40-50 per cent of the RT budgets have been devoted to research which represents, at the current level of support, only approximately \$5 million per year. In 1970 in the 12 medical RT Centers and the 7 special RT Centers there were 647 active research projects so it may be seen that the average cost is under \$10,000 and the efficiency of these programs is high. The great advantage of the program grants for research and training in the RT Centers is the flexibility which maximizes staff utilization, decreases lead time in initiating studies, provides flexibility in the utilization of other sources of support, and provides for the maintenance of competent personnel interacting together in institutions which allow interdisciplinary studies to be undertaken.

In addition to their research, these Centers have provided professional rehabilitation training to more than 120,000 persons as shown in Table I. Long term training or training leading to professional degrees at 11 of these centers has added more than 12,000 graduates to the medical rehabilitation professions.

These RT Centers have exerted a major influence on the development of the concept, and now the practice, of comprehensive continuing medical care for patients with chronic diseases and disabilities. One example of how this research has influenced medical care might be cited. In this case the research studies were carried out at Minnesota under the direction of Dr. Paul Ellwood

at the Kenny Rehabilitation Institute. The study of the effective system to provide rehabilitation led to the concept of Health Maintenance Organizations as a means of providing comprehensive and continuing health care and maintenance on a planned contractual basis in order to decrease the costs of illness, dependency, and the attendant social disadvantages. It was through studies of a system to provide rehabilitation services to the severely handicapped that Dr. Ellwood developed the model of the Health Maintenance Organization.

As another example of the impact of the Rehabilitation Research and Training Center programs on the local system of health care I should like to use as an illustration the RT Center at the University of Washington in Seattle under the direction of Dr. Justus Lehmann. This center provides the only comprehensive rehabilitation service west of Minneapolis and north of Denver and San Francisco. Patients living in the Northwest who have severe physical disabilities are dependent on this Center for their care. More important, students from this very large area must go to the RT Center at the University of Washington for training in the rehabilitation professions. This is the only program in the Northwest for training for medical students in rehabilitation as well as physicians specializing in Rehabilitation Medicine. It is the only program providing training for physical therapists, the only program offering the Master of Science degree for occupational therapists, one of two graduate programs in rehabilitation counseling, the only Ph.D. program in

rehabilitation nursing, and the only program providing training for engineers and for clinical psychologists in rehabilitation. In addition to the training and the service associated with that training the Washington RT Center has conducted significant, clinically-applicable research in a number of areas of rehabilitation, including management of patients with incapacitating pain, development of more effective braces and prosthetics, the application of microwave diathermy and ultrasound for the treatment of patients, and improved methods for achieving rehabilitation.

The budget for the special Research and Training Centers has been \$10.275 million, without an increase since 1968, although inflation has increased medical costs and wages nearly 10 per cent each year. For 1972 the Office of Management and Budget again has recommended only \$10.275 million which represents an attrition in activities due to inflation since 1968 of 35 to 40 per cent. It is, therefore, requested that an additional 35% be added to the budget to offset the effects of inflation, and that an additional \$3 million be added to allow further development of these highly productive Research and Training Centers. Eight of the 12 medical RT Centers are underfunded, one only at the level of a pilot project at \$100,000 and 5 at about one-third of the support needed to establish comprehensive educational and research programs in rehabilitation medicine. This proposal would increase the budget for the Rehabilitation Research and Training Centers to \$16.855 million for 1972.

Research and Demonstrations. The Research and Demonstration grant program of S.R.S. is essentially the only source for support of rehabilitation research projects within the Federal government. These grants are made to support research directly applicable to the problems of rehabilitation. In general, this program has been directed to those research studies which have clear, direct and immediate application to the problems faced in rehabilitation. This control has been necessary because the amount of money available for research projects has been small. Only 0.2 per cent of the budget of S.R.S. is devoted to rehabilitation research projects. In comparison with the research budgets of the National Institutes of Health, also, this is a very small program. However, the objectives and perspectives of N.I.H. are so different from those of rehabilitation medicine that research in rehabilitation has been unable to attract support from N.I.H. As a consequence highly significant problems which are costly to the rehabilitation process cannot be studied because this kind of applied research does not attract the interest and support of N.I.H.

We are requesting that \$9 million in additional support be added to the Research and Demonstration grant program in 1972. \$3.5 million is requested to establish special Regional Spinal Cord Injury Centers equipped and staffed to provide the necessary health care to the patient who has suffered a spinal cord injury, from the time of the accident through his acute care and rehabilitation and

including follow-up after discharge from the hospital. The cost of medical care for spinal cord injuries is enormous, estimated at \$65,000 per patient. Inadequate care results in increased morbidity and increased medical costs. Inadequate rehabilitation results in further economic losses to the patient and to society. It is estimated that there are 60,000-100,000 spinal cord injured persons with an annual cost of health care of \$2.4 billion.

\$3.5 million is requested to establish rehabilitation engineering centers in which the abilities and knowledge of engineers can be combined with the expertise of the rehabilitation professions to provide new equipment, special adaptations and environmental changes which will make handicapped patients more independent. In many instances such as prosthetic and orthotic development, cardiac pacemakers, muscle stimulators, infrared and microwave detectors, protective devices and other specialized equipment, this combination of talents has been productive. However, there has been no program established which provides continuing support for rehabilitation engineering activities. With these funds a number of applied research programs in rehabilitation engineering could be established in selected locations.

An additional \$2 million is requested for general support of Research and Demonstration projects. There are always more research project applications recommended for approval than can be funded.

The inability to conduct this applied research on the current problems of rehabilitation is costly to the rehabilitation effort because it keeps the program less effective than it might be. The inability to study the various aspects of the rehabilitation process because of lack of funds deters physicians and other health personnel in universities from developing an interest and competence in rehabilitation. Inevitably such persons gravitate toward areas of support. Rehabilitation medicine is needed by the 10 per cent of the population with physical disabilities and chronic disabling diseases. In order to develop the capacity to provide those services we need the academic faculty to increase training. We need research to provide answers to problems. We need an adequate supply of professionally trained personnel to provide those rehabilitation services.

Training. It is recommended that the Training program in rehabilitation be supported at \$24.65 million in 1972. Training in rehabilitation medicine consists of teaching grants awarded to universities and medical schools to establish and maintain training programs in the various rehabilitation professions, and graduate traineeship grants to physicians, counselors and other rehabilitation personnel to take specialty training in rehabilitation, as well as a certain amount for undergraduate traineeships in shortage areas such as physical therapy and occupational therapy. This grant support is shown in Table II.

In spite of the fact that there is an extreme shortage of personnel in rehabilitation coupled with a growing recognition of need for services in rehabilitation medicine, and in spite of the fact that all of the proposed Federal health insurance programs contain provisions for catastrophic illnesses, most of which will require more rehabilitation services, the program for training grants in rehabilitation medicine has been cut virtually in half by the Office of Management and Budget for 1972. Table II illustrates that each year since 1969 the teaching grants which support institutional costs of teaching have decreased so that in the proposed 1972 budget teaching grants are one-third to one-fourth of the amount supported in 1969. In the same manner the traineeship support has been decreased. I wish to emphasize as strongly as possible that if traineeship stipends are no longer provided in rehabilitation medicine physicians will enter other specialties than rehabilitation medicine. The cost of 3 years of postgraduate medical education is so high that training stipends are essential. Almost all of the physician stipends for training in rehabilitation medicine come from S.R.S. Again I should like to use the University of Washington as an example of the impact of the Federal program. At the University of Washington 15 of the 18 physicians receiving graduate training in rehabilitation medicine are on traineeships from S.R.S. and only 3 traineeships are provided by the state.

Within H.E.W. the training budget of S.R.S. was set at \$24.65 million for 1972. However, the Office of Management and Budget reduced the

training budget to \$14.65 million. It is requested that this item be restored to \$24.65 million, which will still be less than the support in 1969 but it will prevent the complete collapse of these training programs. It is obvious that if universities are forced to discontinue these programs because of loss of support the re-establishment of them in the next few years will be at considerably greater cost. During the interim the increasing demand for rehabilitation services produced by new Federal legislation for health insurance will aggravate the problem of inflation in rehabilitation.

Although rehabilitation medicine has become a medical specialty, only 1,200 out of the 310,000 physicians in active practice in the United States are specializing in rehabilitation medicine. These physicians act as primary physicians to those patients with chronic diseases and disabilities. As a matter of fact they may be the only physicians prepared to deal with catastrophic disabilities such as spinal cord injuries, strokes, amputations, arthritis, multiple sclerosis, and children with congenital defects or other severely disabling diseases. In addition, physiatrists act as consultants to other physicians regarding the problems of disability which they handle. Most of the physiatrists trained in the United States since 1950 have been supported by traineeships and trained in programs which have received training grants from the Vocational Rehabilitation Administration or the Social and Rehabilitation Service. The training programs for physiatrists up to the present time have

been entirely dependent upon this agency. The support of departments of rehabilitation medicine to set up these training programs and also the support of traineeships which make it possible for a physician to specialize in rehabilitation medicine are provided through S.R.S. Not only the expansion but also the continuation of rehabilitation services is dependent upon the maintenance of these training programs. When this training program for physiatrists started in 1955 there were only 55 residencies available in physical medicine and rehabilitation in the United States. Last year there were 561. In 1960 we had only 428 Board certified specialists in physical medicine and rehabilitation; now there are more than 850. Although the relative increase in the number of physiatrists looks promising, we still have only 5 per cent of the physiatrists needed in the United States at the present time.

In all of the other rehabilitation professions--occupational therapy, physical therapy, speech therapy, audiology, rehabilitation nursing, and others--the same development has occurred because of the Federally-supported training programs. Although rehabilitation medicine depends upon this trained, cooperating rehabilitation team, the critical shortage is among the trained physicians, the physiatrists. In the absence of physiatrists, rehabilitation medicine can neither be maintained nor further developed. Since there is no support of physiatric training in any other agency of government, continuation of effective rehabilitation services to decrease dependency is contingent upon the maintenance of this

training program under S.R.S. Diversion of these monies to "new initiatives", as has been proposed, would result in the dissolution of these training programs and with it the collapse of the programs for rehabilitation services.

The current investment of less than 0.5% of S.R.S monies in research and training stands in sharp contrast to the recommendation of the task force on Medicaid of H.E.W. which recommended that 5% of the annual Medicaid funds be utilized to organize services and develop new sources of manpower. The organization of services and development of new sources of manpower are precisely what are being done by the Regional Rehabilitation Research and Training Centers and by the training programs for the rehabilitation professions. If S.R.S. is to be more than an agency to maintain the disabled in a state of dependency it must train the professional rehabilitation personnel to carry out these tasks and conduct the research studies which will lead to the development and application of more effective rehabilitation programs.

In summary, we are requesting that an additional 0.2 per cent of the budget of the Social and Rehabilitation Service be added to the Research and Training budget proposed by the Office of Management and Budget. This increase would be just about equal to the reduction in Research and Training which was proposed by the Office of Management and Budget for 1972. This proposed restoration of budgetary support totals \$25.58 million distributed as follows:

For the Regional Rehabilitation Research and Training Centers an additional \$6.58 million.

For the Research and Demonstrations program an additional \$9 million, of which \$3.5 million would be used to develop special spinal cord injury centers, \$3.5 million would establish rehabilitation engineering centers, and \$2 million would be used to support additional research projects.

For training grants and traineeships in rehabilitation \$10 million to be added to the budgeted amount of \$14.65 million to restore it to \$24.65.

Table I

NUMBER OF PROFESSIONALS TRAINED IN SHORT AND LONG-TERM COURSES
IN SPECIAL MEDICAL RESEARCH AND TRAINING CENTERS

			<u>Rehabilitation Personnel Trained</u>		
<u>RT Center</u>		<u>Years</u>	<u>Long-Term</u>	<u>Short-Term</u>	<u>Total</u>
RT-1	New York Univ.	9	1,251	15,300	16,551
RT-2	Univ. of Minn.	9	2,247	22,794	25,041
RT-3	Univ. of Washington	8	3,885	12,726	16,611
RT-4	Baylor Univ.	8	*	*	16,924
RT-6	Emory Univ.	6	3,028	5,482	8,510
RT-7	Tufts Univ.	1	884	267	1,151
RT-8	Temple Univ.	5	*	*	10,235
RT-9	George Washington U.	6	340	3,310	3,650
RT-10	Univ. of Colorado	5	413	9,295	9,708
RT-19	Univ. of Alabama	4	22	9,863	9,885
RT-20	Northwestern Univ.	1	683	1,657	2,340
11 Centers		62 years	12,753	80,694	120,606

Long-term training--training of more than 6 months or
leading to a degree

Short-term training--short courses, refresher courses
and units of training of less than
6 months

*Breakdown between Long-term and Short-term courses unavailable

Table II

TRAINING GRANTS IN SOCIAL AND REHABILITATION SERVICE

	<u>Teaching Grants</u>				<u>Traineeships</u>			
	<u>1969</u>	<u>1970</u>	<u>1971 est</u>	<u>1972 est</u>	<u>1969</u>	<u>1970</u>	<u>1971 est</u>	<u>1972 est</u>
Medicine	2.778	1.921	1.700	.938	2.947	2.772	2.200	1.5
Physical Therapy	.394	.290	.275	.128	1.107	1.122	1.020	.450
Occupational Therapy	.429	.270	.285	.108	.898	.926	.790	.350
Speech Pathologist	1.132	.653	.700	.424	2.506	2.326	2.000	1.000
Rehab Counselors	2.771	2.384	2.495	1.880	5.846	5.920	5.620	4.980
Social Workers	.999	.716	.650	.374	1.085	1.057	.850	.400
All Teaching Grants	13.550	11.282	11.282					
All Traineeship Grants					18.133	16.318	16.318	

Total Training	31.683	27.600	27.600
Training Request, S.R.S.			\$24.65
Budgeted, OMB			14.65
NEEDED RESTORATION FOR TRAINING			\$10.00
Dollar support in millions-			

TOTAL INCREASE REQUEST

Senator COTTON. Now, have you in your statement laid out each one of your requested increases?

Dr. KOTTKE. That is right.

Senator COTTON. Do you have the total of your requested increase?

Dr. KOTTKE. The total comes to \$25.58 million.

Senator COTTON. Of all these increases?

Dr. KOTTKE. Of all the increases I am recommending, the total is \$25.58 million.

Senator COTTON. Now that the chairman is here, I don't care to speak for the subcommittee, but I think that this subcommittee is keenly aware, and we have already had very fine evidence in this rehabilitation field of this situation, the whole subcommittee, both sides of the subcommittee.

We also realize that if you get just what you got last year it is a decrease because despite the fact that our administration is reducing inflation it has not reduced it enough so that you can buy this year what you could buy last year. I think that you will find that you will not have only the same sympathetic consideration of the committee but you will have some concrete recommendations if the full committee goes along with this subcommittee.

I hope I am not assuming too much, Mr. Chairman, when I make this statement because this has been an excellent statement.

Senator MAGNUSON. I am sorry I missed your statement. I do apologize. I had to go to the dentist which probably points up a major problem addressed in this whole bill. If you don't go when you get an appointment, you miss your turn for 2 months.

Senator HUMPHREY. You are so right.

Senator COTTON. I have just had my ear drum pierced to try to get some infection out of it. Between us, we have had our troubles this morning.

We have heard so many witnesses that it has caused each of us to have an ear infection since these hearings started. But it has all been for a good cause.

I have no other questions to ask.

LETTER FROM DR. JUSTUS F. LEHMANN, UNIVERSITY OF WASHINGTON

Senator MAGNUSON. I have no questions, but I am familiar with the matter you testified to. I have a very comprehensive letter from Dr. Lehmann which I will put in the record at this point. I can assure you that we will take a good close look at this.

(The letter follows:)

UNIVERSITY OF WASHINGTON,
Seattle, Wash., July 9, 1971.

HON. WARREN G. MAGNUSON,
U.S. Senate,
Old Senate Office Building, Washington, D.C.

DEAR SENATOR MAGNUSON: Knowing from the years past the great interest you have taken in the welfare of the handicapped of this nation I would like to take the liberty of pointing out that a crisis in delivering the services for the handicapped is in the making.

I am sure you are well aware that physical disability in many cases leads to loss of employment and poverty affecting not only the disabled person himself,

but also his family. At the same time I am sure you are also acquainted with the fact that poverty itself, because of the lack of medical care, may lead to disability. Services developed for the physically handicapped serve in many instances as a prototype model for the solution of problems of the culturally and socially disadvantaged of this nation. As a matter of fact, a physical handicap automatically puts the patient in a minority group. Thus, it is not surprising that some of the solutions developed for the physically handicapped have a broader application.

Both professional manpower and services for the handicapped have been limited primarily due to shortage of personnel. The major breakthroughs in improvement of the delivery of health care as well as the advances made through research have been made possible only through the programs of the Office of Vocational Rehabilitation, the Vocational Rehabilitation Administration, the Rehabilitation Services Administration and the Social and Rehabilitation Service developed under the guidance of Miss Mary Switzer.

Regional Research and Training Centers and a system of Research, Demonstration and Training grants as well as traineeships for professional students as provided through the Social and Rehabilitation Service are greatly needed. The situation at the present time has become very serious since major budgetary cuts are contemplated for the Research and Demonstration grants, for the training grants and the traineeships. Also, holding the appropriation for Research and Training Centers at the present level has been considered. I have taken the liberty of enclosing testimony on this topic given by Dr. Frederic Kottke, Professor and Chairman of the Department of Physical Medicine and Rehabilitation at the University of Minnesota, Dr. William Spencer, Director and Professor and Chairman of the Department of Rehabilitation at the Baylor University College of Medicine, and Dr. Edward W. Lowman, Clinical Director of the Institute of Rehabilitation Medicine at the New York University, before the Honorable Daniel J. Flood's committee. Since the developing field of medical and comprehensive rehabilitation is still largely dependent on Federal support I feel that such a cut would have a catastrophic impact on the services to the handicapped and indirectly on the services to the socially and culturally disadvantaged. It would withdraw the support for training the required health manpower and curtail services presently available. It would not allow for a gradual even though desirable take-over from local and state resources at a time when these resources are themselves highly limited. Thus, many handicapped patients and many disadvantaged would be worse off than they have been for a long time. This would occur at a time when research has shown us how to deal more adequately with many problems such as the spinal cord injured, the stroke patients, the amputees, the arthritis victims, the multiple sclerosis victims, the children suffering from dystrophies, congenital defects and other disabling diseases.

I therefore would like to propose a 35 per cent increase to match the cost of living plus an additional three million for expansion, for a total of \$16.855 million for the Research and Training Centers. Also, the level of support should be maintained for the Research and Demonstration grants as well as the stipends for rehabilitation medicine residents (physicians specializing in the field of rehabilitation medicine) and at least some stipends for other students if they belong to the socially and culturally disadvantaged and need the support to allow them to enter health careers. Some of the training grants for medical students and undergraduate medical students are sponsored through the Social and Rehabilitation Service and the Rehabilitation Services Administration, others are sponsored through the Allied Health Sciences grant.

In justification of this request I would like to illustrate the impact of these programs on the state of Washington and the Pacific Northwest. The Regional Research and Training Center at the University of Washington provides the major and, in many cases sole source of professional manpower to deliver services to the handicapped in the many hospitals, communities and agencies. This is the only program for training in rehabilitation to the medical students as well as the physicians specializing in rehabilitation medicine. It is the only program providing training for physical therapists, the only Masters program for occupational therapy, the second program in occupational therapy at the Bachelor of Science level and in rehabilitation counseling at the Master of Science level, the only post-masters program in rehabilitation nursing, the only program providing training for engineers, and for clinical psychologists. Thus, funds are desperately needed to maintain and increase the training capability of the Research and Training Center to provide the manpower for the Pacific Northwest. The

University of Washington has already established a building program which will be completed in 1972 and will accommodate an increase in the student body. However, funds are badly needed for faculty. Thus, this Research and Training Center program is a major source of manpower for the states of Washington, Alaska, Idaho, Montana and Oregon.

At the same time the Research and Training Center delivers a unique and comprehensive service to the most severely handicapped such as spinal cord injury victims, stroke patients, amputees and others. The comprehensiveness of this program is unique. In conjunction with the Children's Orthopedic Hospital a special rehabilitation program for children has been recently established. About fifty per cent of these 6,097 patients annually treated are on the welfare rolls. In many cases the patient care funds available to the Research and Training Center make care of these unfortunate socially and culturally disadvantaged patients possible for services which would otherwise be unavailable to them in the entire region.

Major breakthroughs in many areas have been achieved through the research done at this Center. Examples are management of chronic pain problems, management of brace and prosthetic problems and management using new sources of energy for the physical therapy modalities. Also, the hazards of non-ionizing radiation such as microwaves, to which our population is greatly exposed, is being thoroughly investigated. Benefits from this research will not only be available to the handicapped through therapy programs but also to the manufacturers of such equipment as microwave ovens where safety standards and safety devices can be improved. Thus, if appropriations to the Research and Training Center would not increase, the major source of manpower for health care and advancement of treatment procedures in the Pacific Northwest would be seriously curtailed with a resulting shortage in various areas, when actually more services should be made accessible to the handicapped and the disadvantaged.

Similarly, training grants which help curricula at this University as well as at other institutions to maintain an adequate level of faculty may be seriously jeopardized both through curtailment of Social and Rehabilitation Service appropriations and Allied Health Sciences grants. This may have a greater impact on other regions of the country where there are no Research and Training Centers developed to the point they are here in this State. Most important perhaps as I pointed out to you in a previous letter, the curtailment of and phasing out of traineeships to students may be more traumatic in some areas than in others. I personally would feel that a limited stipend should be available to the disadvantaged students to allow those capable students to pursue health careers. This, however, may be considerably less than presently appropriated. Yet, in selective areas such as in the area of stipends to trainees (undergraduate medical students, residents) who specialize in rehabilitation medicine, a reduction of the grant support would be a devastating blow to the supply of medical manpower to the handicapped. This is due to the fact that at this stage of development almost the sole source of support for such trainees comes from the Federal government. Local resources have not been developed because of the availability of these funds from Federal sources. Our own training program may be an illustrative example. We have approximately eighteen residents. Out of these positions only three are budgeted by the state through the University of Washington. That means that if Federal funding were to be phased out this source of manpower would virtually dry up. I think the present level of Federal support must be maintained for at least a period of five years in order to allow an adjustment and transfer to local support. As you well know such local support is very scarce at this time, particularly in our own state and I am sure also in other states. In addition this would have a very serious impact indirectly on the education of medical students. The maintenance of such training programs largely depends on the presence of residents. I hope that these examples may illustrate our national problem. In our state where we have the problem of unemployment and increasing welfare rolls, unique health care services would be withdrawn unless funding of the Research and Training program is increased commensurate with the increase in the task. Our program has increased its student body by 88 per cent during the past five years. The services for the handicapped have come a long way under previous administrations, however, it must be recognized that these services still depend, perhaps on a larger than desirable degree, on Federal support. Local support in this economic situation cannot be forthcoming rapidly.

I certainly would not have written this letter if I were not firmly convinced that the fate of the handicapped in our nation is at stake. I am very much concerned that this minority group very well may be forgotten. That I am not standing alone is shown by the testimonies which I have enclosed and also by a recent KIRO editorial which dealt specifically with the plight of the handicapped. I am sure that you are most interested in the handicapped and therefore I thought it appropriate to bring this problem to your attention.

Sincerely yours,

JUSTUS F. LEHMANN,
M.D., Professor and Chairman.

Senator COTTON. We thank you for your statement.

There are good things said about both centers. I am well satisfied. Tufts University in New England, along with the one in the University of Washington, should be carefully taken care of.

Dr. KOTTKE. I agree with you thoroughly.

STATEMENT OF HON. HUBERT H. HUMPHREY, U.S. SENATOR FROM MINNESOTA

REHABILITATION SERVICES

Senator HUMPHREY. Mr. Chairman, I was unable to be here at the opening because I went to the new Senate Office Building first.

I just want to add one word, if it is permissible.

Senator MAGNUSON. Yes; go right ahead.

Senator HUMPHREY. The rehabilitation services that Dr. Kottke and his associates provide at the University of Minnesota have truly gained national and international acclaim. I have known Dr. Kottke for a long, long time. He and his associate, Dr. Kubichek, work together in a partnership of medicine and engineering, physiology and rehabilitation. Their work has been nothing short of a series of remarkable achievements.

I hope that this subcommittee will take very seriously the recommendations of Dr. Kottke who is considered to be a very responsible and highly regarded and respected man in this field. I think we can save a lot of lives.

Some of you may remember in our part of the world we had the Kenny Institute. These have all been tied in with all of our great medical programs in the midwest.

What Dr. Kottke is asking for is that we take the experience which we have had in our part of the country and apply it to more universities in a number of regional centers. The savings ultimately to the public will be phenomenal. The people who have been rescued from total disability or partial disability are really some of the miracle cures of our time. I hope that the recommendations that he has made will be accepted or at least accepted in large measure. I must say in all candor that the cutbacks in this field just don't make any sense. Honestly, they don't make sense.

First of all, you lose good people. You fail to keep up with the growth in population. I think I am correct, there has not been any increase since 1968. You just can't survive on that kind of program. You can't keep the team of professionals that you need together.

That is about all I wanted to add.

I have been in communication with Dr. Kottke ever since I returned and while I was away Dr. Kottke was overworking Senator

Mondale and before Senator Mondale he was working me over. He is a very persistent fellow. So, I suggest that you yield early because he will win in due time.

Thank you, Senator Magnuson.

Senator MAGNUSON. Thank you.

Thank you all. We appreciate your testimony.

Senator COTTON. Thank you, Mr. Chairman.

**STATEMENT OF JACK E. ORR, DEAN AND PROFESSOR, COLLEGE OF
PHARMACY, UNIVERSITY OF WASHINGTON**

ACCOMPANIED BY:

**DR. R. O. BACHMANN, DEAN AND PROFESSOR OF PHARMACEU-
TICAL CHEMISTRY, SCHOOL OF PHARMACY, WEST VIRGINIA
UNIVERSITY**

**DR. CHARLES W. BLIVEN, EXECUTIVE SECRETARY OF THE
AMERICAN ASSOCIATION OF COLLEGES OF PHARMACY**

**WILLIAM J. SKINNER, ASSISTANT EXECUTIVE SECRETARY OF
THE AMERICAN ASSOCIATION OF COLLEGES OF PHARMACY**

Senator MAGNUSON. I have next on the list Charles Bliven of the American Association of Colleges of Pharmacy.

Is that the University of Maryland?

INTRODUCTION OF ASSOCIATES

Dr. BLIVEN. I am Charles Bliven.

Our speaker this morning will be Dr. Jack E. Orr of the University of Washington.

Senator MAGNUSON. Well, I heard he was going to be here.

You don't have anybody from New Hampshire?

Dr. BLIVEN. We don't have any school in New Hampshire.

Senator MAGNUSON. You go ahead.

Dr. ORR. Thank you, Mr. Chairman.

My name is Jack E. Orr. I have been dean and professor at the College of Pharmacy, University of Washington, since 1956.

For the past 3 years, I have served as chairman of the executive committee of the American Association of the Colleges of Pharmacy.

I have with me Dr. Bliven who just introduced himself as the executive secretary of the American Association of Colleges of Pharmacy for the last 10 years, prior to which he was dean of the school of pharmacy.

Next to me is Dr. R. O. Bachmann, dean and professor at the West Virginia School of Pharmacy. Prior to that time, he was with the University of Arkansas for a number of years.

Dr. Skinner at the end is our assistant executive secretary. He is a pharmacist and attorney.

Senator MAGNUSON. That is an unusual combination.

Dr. ORR. I would like to present the prepared statement that we have for the record. I am going to read a few paragraphs and highlight the rest.

PREPARED STATEMENT

Senator MAGNUSON. We will put the rest in the record in full.
(The statement follows:)

My name is Jack E. Orr. I have been dean and professor at the College of Pharmacy, University of Washington since 1956. I am also the Washington State Chemist. For the past three years, I have served as chairman of the Executive Committee of the American Association of Colleges of Pharmacy.

Accompanying me are:

- Dr. R. O. Bachmann, dean and professor of pharmaceutical chemistry, School of Pharmacy, West Virginia University, since 1961. Prior to this, he served on the faculty of the University of Arkansas. Dr. Bachmann is a past president of the AACP.
- Dr. Charles W. Bliven, executive secretary of the American Association of Colleges of Pharmacy for the last ten years. Prior to this, he was a dean of a school of pharmacy for 14 years. He is currently vice-chairman of Federation of Associations of Schools of Health Professions.
- Mr. William J. Skinner, assistant executive secretary of the American Association of Colleges of Pharmacy. He is a pharmacist and an attorney.

This statement will express the needs of the 74 schools of pharmacy for the various programs being developed in amendments to the Health Professions Educational Assistance Act. In addition, the statement will comment briefly on the programs of the National Institutes of Health and the Health Services and Mental Health Administration.

The member schools of the AACP are all nationally accredited. Seventy-three of our schools are located in 44 states and the District of Columbia, the remaining school is located in Puerto Rico. Approximately 2,000 full-time and part-time teachers are engaged in the instruction of approximately 19,000 undergraduate and 2,100 graduate students.

Since 1960 the curriculum leading to the professional degree in pharmacy has required a minimum of five academic years. Two schools offer only a six-year curriculum leading to the professional degree, doctor of pharmacy, and nine others offer this program on an optional basis, in addition to the five-year curriculum. In the five-year program, at least three years of work in the professional subjects are required in addition to the two-year basic science program. In the six-year curriculum, four years are mandatory beyond the two years of basic sciences.

In our testimony before the Senate Subcommittee on Health, Dr. Arthur E. Schwarting and Dr. Joseph L. Kanig outlined the new role of the pharmacist in health care delivery. We believe that it is important that you know how the Federal dollars have assisted and will assist pharmacy schools. Therefore, if time permits, Dean Bachman and I will elaborate on the new role of the pharmacist. For details we refer you to the testimony before the Subcommittee on Health which we have attached to this statement.

The authorizing legislation to extend the Health Professions Educational Assistance Act, as you know, passed the House of Representatives on July 1st. The Senate Committee on Labor and Public Welfare reported out a final bill, S. 934, on July 12. Both the House and Senate bills would continue construction grants, scholarships and loans, institutional grants, and special projects. A new provision in both bills would allow construction loan guarantees and payment of interest subsidies. The House bill would limit scholarships to full-time students from low-income backgrounds after June 30, 1973, while the Senate would provide scholarship monies to schools based on the total full-time enrollment, plus an additional amount

for students from economically or educationally disadvantaged families. The loan repayment and forgiveness provisions are slightly different. The Senate bill also authorizes health profession students to obtain loans under the Higher Education Act, presumably utilizing appropriations in the Education Appropriation Bill, signed recently by President Nixon.

The bills differ significantly in the area of institutional grants. We will discuss this more fully in a moment. At this time we point out that both bills will require an increase in enrollment to obtain the maximum institutional grant. The Senate bill would give the maximum grant only when the first-year enrollment exceeds first-year enrollment for the preceding school year by not less than 5 per cent, or by not less than 5 students, whichever is greater; or the second preceding school year by not less than 10 per cent, or by not less than 10 students, whichever is greater; or the third preceding school year by not less than 15 per cent, or by not less than 15 students, whichever is greater. A condition precedent to receipt of the House capitation grant is an increase in first-year students of 5 per cent, or 10 students, whichever is greater, in the fall of 1971 over the first-year enrollment of the fall of 1970.

In the House bill, special project grants and contracts may be made to all seven of the health profession schools for current and new purposes. This bill would limit one half of the amount appropriated for special projects for the purpose of assisting schools who are in serious financial straits. The special project provisions of the Senate bill would authorize monies for current and new purposes. A new section in the Senate bill authorizes grants to assist schools to meet accreditation requirements.

New provisions in the House bill, which do not appear in the Senate bill, authorize \$2 million for FY 1972 for grants for training, traineeships, and fellowships for health professions teaching personnel. In addition, the House bill

authorizes \$25 million for FY 1972 for grants for training, traineeships, and fellowships in family medicine. Start-up assistance for schools of medicine, osteopathy, and dentistry are authorized in the House bill at \$10 million, and it provides for health manpower education initiative awards with authorizations up to \$45 million for FY 1972.

New provisions in the Senate bill, which do not appear in the House bill, would authorize grants for the support of graduate training programs for physicians and dentists up to \$15 million for FY 1972. Also grants to schools of medicine and osteopathy and to hospitals are authorized at \$25 million for education, training, traineeships, and fellowships in family medicine. Computer technology is encouraged by a \$25 million authorization. The Senate bill also authorizes \$5 million for FY 1972 for recruitment of health profession students and sums as necessary for conducting a cost study of education of health profession students by the National Academy of Sciences. In addition, a special scholarship program is included to promote medical care for persons in physician-shortage areas and for migratory agricultural workers or members of their families. \$2.5 million are authorized for FY 1972 for these scholarships. The Senate bill also establishes a National Health Manpower Shortage Clearinghouse and authorizes sums as necessary to operate and maintain the clearinghouse.

AUTHORIZATIONS FOR PHARMACY

To summarize the authorizations affecting pharmacy, we have prepared Table A which lists each of the programs of the Senate and House bills.

TABLE A

AUTHORIZATIONS FOR FY 1972	<u>S. 934</u>	<u>H.R. 8629</u>
Project Grants for Training, Traineeships and Fellowships (all professions)	-0-	\$ 10,000,000
Grants for Training, Traineeships and Fellowships in Family Medicine	-0-	25,000,000
Construction Grants (all professions) [Pharmacy requests 25% for pharmacy, optometry, podiatry and veterinary medicine]	\$200,000,000	225,000,000 (portion of 10% for pharmacy) in- dicated by report
Construction Loans (all professions) Amount for interest subsidy limited to	Amounts necessary 8,000,000	Amounts necessary 8,000,000
Student Loans HPEA [Pharmacy requests \$6.2 million for FY 1972]	60,000,000	40,000,000
Student Loans HEA	Included in HEA appropriations	No authorization
Student Scholarships (all professions) [Pharmacy requests \$4.8 million for FY 1972]	Amounts per formula	Amounts per formula
Institutional Grants (all professions) [S. 934 authorizes \$20,500,000 for pharmacy]	426,000,000	245,000,000
Special Project Grants (all professions)	150,000,000	118,000,000
Financial Assistance Grants (all professions)	50,000,000	59,000,000 (one half of special projec
Health Manpower Initiative Awards (all professions)	-0-	45,000,000
Start-up Assistance (medicine, osteopathy, and dentistry)	-0-	10,000,000
Postgraduate Training (physicians and dentists)	-0-	-0-
Family Medicine Grants (medicine, osteopathy, and hospitals)	25,000,000	-0-
Computer Technology Grants (all professions)	25,000,000	-0-
Full Utilization or Recruitment (all professions)	5,000,000	-0-
Physician Shortage Scholarships	2,500,000	-0-

Construction Grants. Since 1963 only nineteen pharmacy schools have received \$19.4 million in Federal construction funds. This allowed an increase in first-year places of 556. Between now and FY 1974, 24 pharmacy schools plan construction with the total anticipated Federal share of \$46.4 million in 21 of those schools. This would allow an increase of 570 first-year places. In addition, 15 schools have reported plans for construction beyond the FY 1974 with a Federal share (calculated at 50 per cent of the total cost) of \$23.9 million.

We believe a strong case can be made for the allocation of a part of the construction funds to schools of pharmacy, optometry, podiatry, and veterinary medicine. These four health professions comprise approximately 33 per cent of the health professions students and 38 per cent of the schools affected by S. 934; pharmacy schools alone account for approximately 25 per cent of the schools affected. Therefore, we believe that 25 per cent of the construction funds should be designated for pharmacy, optometry, podiatry and veterinary medicine.

In past years, these four professions have received approximately 5 per cent of the construction funds. Pharmacy alone has four schools approved for construction, but cannot build because of a lack of funds. This amounts to \$8.5 million for the Federal share. Because of the need for replacement and rehabilitation of existing structures, and expansion of some schools to meet area needs and enrollment increases, we believe this request is fully justified.

Construction Loans. In general most of our schools do not believe that guaranteed Federal loans for construction are appropriate. Educational institutions are usually not income-producing ventures. However, there have been occasions when certain schools could not obtain Federal funding in time to meet matching commitments of private donors or state governments. In these cases, it would be wise to have the construction loan guarantee and interest subsidy available.

Student Loans. In the FY 1971 an estimated 12 per cent of the students in pharmacy were assisted by Federal loans. The schools estimate that an average of 33 per cent of their students will need loan assistance in FY 1972. This percentage will increase slightly each year and in FY 1976, the schools estimate that 39 per cent of the students will require loans. In those schools where the student body consists primarily of minority students, from 50 to 70 per cent of the students will require loans, according to our latest information. Thus, as the number of disadvantaged students of pharmacy schools increases, the greater the need for loan funds as well as for scholarship funds.

The current economic conditions in the United States are responsible for fewer parents having the resources to send their children to college. This lack of college money, coupled with a continuing demand for increasing health services and a continuing interest in pharmacy as a profession, will make it more difficult for the schools to allocate the available loan funds.

In FY 1971, 60 schools of pharmacy (82 per cent) utilized the loan funds. The amount of loans range from less than \$500 to the maximum of \$2,500 per student. While the loan ceiling in S. 934 is now \$3,500 per student, we feel that an average amount of \$1,000 per student will be adequate to take care of the needs in our schools. Therefore, if, as indicated by our schools, 33 per cent of our students (6,152) need loan funds, pharmacy schools will need approximately \$6.2 million for this purpose.

Scholarships. In FY 1969, 23 per cent of pharmacy students were assisted with scholarship grants. In FY 1970, 22 per cent. We estimate that 28 per cent of the pharmacy students will need scholarship aid in FY 1972. In the case of four pharmacy schools with primarily minority student bodies, the corresponding figure is 41 per cent. The schools estimate that they will require \$4.8 million in FY 1972.

Institutional Support Grants. The Senate bill, S. 934, provides institutional grants for pharmacy schools calculated by adding a \$50,000 base grant to the product obtained by multiplying the number of full-time students by \$600. This bill authorizes \$20.5 million for this purpose in FY 1972.

The 73 schools of pharmacy will have an estimated 18,643 students in FY 1972. This will require the entire \$20.5 million. The authorization bill does provide enough money to cover base grants and the \$600 per student, plus the \$300 for first-year enrollment bonus students. The \$300 bonus is given when the school exceeds its first-year enrollment by the required number of students, e.g., by not less than 5 per cent, or by not less than 5 students, whichever is greater, over the first preceding school year. However, there is no money to allow for increased enrollments.

It is extremely important that the appropriations match the level of authorizations for pharmacy in FY 1972. When pharmacy schools first became eligible for institutional grants in FY 1970, the enrollment jumped approximately 800 students (15 plus per cent). This was done at a time when the law required only a 2 1/2 per cent or 5 student increase, whichever was greater, per school. Because S. 934 continues the enrollment increase requirement in pharmacy schools who are already carrying a heavy burden because of their earlier desire to increase the supply of pharmacists, and because several state governments are reducing appropriations to university budgets, we believe the schools are depending heavily on Federal support.

In FY 1971, each school of pharmacy received on the average an institutional grant of \$525 per student. If amounts of money for physical plant renovation are subtracted, the amount of the institutional grant used for teaching purposes was approximately \$460 per student. At the same time, inflation and the increased cost of clinical pharmacy programs has raised the cost of educating a

pharmacist. If federal, state, and private funding of pharmacy education is not increased to the fullest extent, we will have to be content with educating pharmacists who are less competent than the schools are capable of producing. In the past, pharmacy education has generally been limited to the cognitive and manipulative elements through classroom and laboratory teaching. During the last few years, however, pharmacy education has added affective training which allows the use of cognitive and manipulative skills on patients. This is known as the clinical program. Nationally the average cost of educating pharmacy students is approximately \$3,000. We find those schools with advanced clinical components have costs estimated at \$4,000 to \$6,000 per student per year. With these increased costs in mind, we asked the Senate and House Committees to authorize \$2,000 per pharmacy student. Both the Senate and House have given us less than half our request. The Senate, however, has made the clinical component mandatory, thereby assuring an increase in the cost of educating pharmacists. Therefore, we request that the entire authorization of \$20.5 million be recommended by this committee.

Special Projects. Pharmacy schools became eligible for special project grants in FY 1970. Two grants were approved that year for a total of \$267,000 (0.6 per cent of all special projects funds). In FY 1971, only one project was approved for \$109,177.

In past years, medical and dental schools have received nearly all of these funds for continuing grants and for financial straits, leaving few dollars for innovation in pharmacy and the other health professions. Because S. 934 establishes a separate section for schools in financial distress situations and authorizes \$150 million for FY 1972 for special projects, we are much encouraged. Many pharmacy schools have developed a number of innovative programs which can now be funded. Some pharmacy schools have been very active in developing educational

programs for preventing drug abuse through the education of pharmacists, teachers, and other community workers. We expect this trend to grow as more funds are available. Therefore, we urge the subcommittee to recommend full appropriations for special projects.

Financial Assistance Grants. This new section in S. 934 authorizes \$50 million for FY 1972. It is extremely fortunate that the Senate has separated this item from the special project section. Seven schools of pharmacy did not receive institutional grants in FY 1971 because they did not make the enrollment increases required by the law. Because of the lack of federal funds and increased tightening of state budgets, these seven schools and others may be in dire financial need in FY 1972. We urge the appropriation of the entire \$50 million for this purpose.

Computer Technology. Several pharmacy schools are actively involved in computer technology work on university campuses. We believe that this is an area which should be fully explored for health applications, particularly for prevention and control, and we encourage the appropriation of the entire \$25 million authorized for FY 1972 for this purpose.

Full Utilization of Educational Talent. This is a recruitment section aimed at the financially or educationally disadvantaged. The AACCP has been involved in a recruitment program for the last year on a national basis. We expect to continue this program and would look forward to the opportunity of funding portions of our program, particularly for the financially and educationally disadvantaged students, from funds provided by this part of the law. In addition, individual schools need special assistance for identifying and recruiting financially or educationally disadvantaged students. Therefore, we encourage the appropriation of the entire \$5 million authorized for FY 1972.

NIH AND HSMHA PROGRAMS

The Administration budget for FY 1972 recommends \$1,409,609,000 for the National Institutes of Health and \$1,594,482,000 for Health Services and Mental Health Administration (exclusive of certain manpower programs). Both of these budgets represent modest increases. Certain programs have been reduced, however, and we are very interested in seeing some of these restored and maintained. Other programs should receive additional funds. To this end the AACP has joined with the Coalition for Health Funding and we support its recommendations to add to the Administration budget \$215,500,000 for NIH and \$417,000,000 for HSMHA.

Pharmacy schools receive grants from several NIH programs, including the General Research Support (GRS) Program of the NIH Division of Research Resources and from the Institute of General Medical Sciences. These grants support research in pharmaceutical chemistry, pharmacology, and other areas as well as fellowships for young scientists.

Appropriations for GRS grants have been kept level by Congress for the past three years, while the funds actually available have dropped steadily. We recommend that the Senate increase the appropriations for the Division of Research Resources to a total of \$76,069,000.

Reduced appropriations for the Institute of General Medical Sciences are recommended by the Administration budget. We recommend that the cuts be restored and additional amounts added for a total of \$190,400,000 in FY 1972.

Pharmacy schools have received library resource grants of at least \$365,000 from the National Library of Medicine programs. Additional money may have been received through general medical library grants. Many pharmacy schools require additional printed resources for expanded classes and changing curriculum. We urge a total appropriation in FY 1972 of \$24,481,000 for these purposes.

Several pharmacy deans and educators are actively involved in Comprehensive Health Planning (CHP) Projects, such as the Partnership for Health Program. They serve on committees, commissions, councils, and task forces on state and local levels. Pharmacy schools are vitally concerned that good planning take place to assure the best utilization of health manpower and health facilities resources. They believe this planning will require several years of work before health system maintenance planning becomes a top priority.

In terms of planning, the projects sponsored by Health Services Research and Development grants are serving as valuable models to the CHP Councils and others to make health care truly comprehensive. Therefore, we strongly urge that the total appropriation for these programs be \$72,070,000 for FY 1972.

In conclusion, we thank Chairman Magnuson and the subcommittee for this opportunity to testify on behalf of pharmacy education. The American Association of Colleges of Pharmacy is grateful for the support given to pharmacy education in the past years. We urge the subcommittee to provide full appropriations.

My name is Arthur E. Schwarting. I am dean of the University of Connecticut School of Pharmacy. I have served in this capacity for two years, and previous to this I served 16 years as a member of the faculty of the University of Connecticut School of Pharmacy. I am currently the President of the American Association of Colleges of Pharmacy.

Accompanying me are:

- ° Dr. Joseph L. Kanig, dean, Columbia University College of Pharmaceutical Sciences in the City of New York, since 1965. He has served on the faculty there since 1949.
- ° Dr. Charles W. Bliven, executive secretary of the American Association of Colleges of Pharmacy for the last ten years. Prior to this he served as dean of a school of pharmacy for fourteen years. He is currently vice-chairman of the Federation of Associations of Schools of the Health Professions.
- ° Mr. William J. Skinner, assistant executive secretary of the American Association of Colleges of Pharmacy. He is a pharmacist and an attorney, and for five years served as the Manager of Consumer Protection for Smith Kline & French Laboratories.

Subsequent to my testimony, Dean Kanig will offer a brief statement on the current and future role of the pharmacist in the delivery of health services. You will hear about the increased and rapidly expanding capability of pharmacists to serve the health needs of the American public.

We are pleased to have this opportunity to testify on the Health Manpower Training Act amendments and related bills. It is our purpose to support S. 934, endorsed by the Federation of Associations of Schools of the Health Professions, the membership of which is comprised of eleven associations.

The Association opposes S. 1183 for two reasons. The bill fails to include schools of pharmacy, veterinary medicine, optometry, and podiatry in the Capitation Grants section, and, secondly, it fails to continue the scholarship program to entering students except to medical and dental students from "low-income or disadvantaged families." Also, this bill fails to provide entitlement to scholarships to students in schools of pharmacy, veterinary medicine, optometry, and podiatry. Our opposition to S. 1183 was determined after careful analysis of the bill and by the unanimous decision of the delegates attending the annual meeting of the Association in March, 1971. A resolution expressing the Association's position on the various proposals to amend the Health Professions Educational Assistance Act is attached. (See Attachment I.)

We appear before you in behalf of the membership of the American Association of Colleges of Pharmacy, which consists of 74 schools and colleges of pharmacy. All are nationally accredited. Seventy-three of our member schools are located in 44 states and the District of Columbia; the remaining school is in

Puerto Rico. More than 2,000 full-time and part-time teachers are engaged in the instruction of approximately 19,000 undergraduate and 2,100 graduate students.

In FY 1963 schools of pharmacy became eligible for construction grants, in FY 1965 for scholarships and loans, and not until FY 1970 did they become eligible for institutional and special project grants.

The curriculum leading to the professional degree in pharmacy requires a minimum of five academic years. Two schools offer only a six-year curriculum leading to the advanced professional degree, doctor of pharmacy, and nine others offer the longer program on an optional basis, in addition to the minimum program. In the five-year program, at least three years of work in the professional subjects are required in addition to the two-year basic science program. In the six-year curriculum, four years are mandatory beyond the two years of basic sciences.

THE NEW ROLE OF THE PHARMACIST IN HEALTH CARE DELIVERY

We hasten to point out that since this legislation was last extended, pharmacy has changed rapidly in response to the health care needs of the American public. This change continues to receive support and encouragement from the medical profession and representatives of the Federal government.

Dr. Kenneth M. Endicott, director, Bureau of Health Manpower Education, in 1970 told the House Appropriations Subcommittee on Departments of Labor and Health, Education, and Welfare of the Committee on Appropriations:

The quality of health care is being enhanced by the continuing development of optometry and podiatry. Both of these professions have demonstrated their capacity to fill an expanding role on the health team as they provide a significant volume of specialized services in addition to complementing the diagnostic function of the physician.

Another important change is increasing reliance on the pharmacist as a member of the health team in clinical settings.

Trained as a drug information specialist, the pharmacist is consulted on such factors as therapeutic incompatibilities, adverse side effects, and effectiveness of drugs in therapy for individual patients.

This important change in reliance on the pharmacist as a member of the health team was also emphasized in March 1971 before the Association by Margaret M. McCarron, M.D., associate professor of medicine and pharmacy, University of Southern California. In describing the new educational program in clinical pharmacy, she said it is a "...new direction in pharmaceutical education. The aim ... is to educate 'patient-oriented' drug specialists to assume meaningful roles in the delivery of health care."

The following are some excerpts from her address concerning the program and the possible roles of the pharmacist in the health care system:

There is a need for the pharmacist to be the first contact in the health care delivery system, simply because many patients come to him first. Under the present circumstances, a well-trained pharmacist could handle many problems in the community pharmacy rather than referring patients to crowded emergency rooms or to overburdened physicians.

(Reducing the error rate in drug administration in hospitals.) The pharmacist could improve the quality of patient care and contribute significantly to the health manpower pool by assuming complete responsibility for drug administration in hospitals, from receiving the physician's order to supervising technicians in administering and charting of medications.

(Adverse drug reactions.) Although we do not teach our students to diagnose patient illnesses, we do teach them to diagnose adverse drug reactions, to document them clinically, to report them promptly to the physician, and to be able to advise the physician regarding the specific treatment of the reaction and alternate therapy if indicated.

(Drug interactions.) We teach the student to recognize drug interaction problems, determine if they are clinically significant, and to take corrective action.

(The evaluation and interpretation of drug information.) The pharmacist who has been trained in the biological and clinical application of drug therapy as well as in the chemical and physical properties of drugs, has the potential

for contributing vital health care information to the physician....

(On patient education.) ... the pharmacist should be concerned about the patient's use of drugs. He should tell the patient what the drug is for, using clinical judgment so he will not frighten the patient, and the importance of its proper use....

We attempt to teach the students how to communicate with patients, to give intelligent, clear instructions, and to determine that they are understood.

Dr. Kenneth B. Castleton, vice president for medical affairs, University of Utah, has written: 1/

... The time has come for the pharmacist to become a full-fledged member of the health team. He should be utilized for his knowledge and skills and not just for his ability to dispense. He should be consulted by the physician regarding drugs, reactions, toxicity, available forms, and cost. He should also be consulted by the public regarding proprietary and nonproprietary items and drug reactions. Many of the newer drugs are more toxic than the old ones and require more careful supervision. Moreover, with the decrease in time spent on the basic sciences, medical students are getting less exposure to pharmacology and they will need expert advice more than ever before.

Medicare requires that every hospital participating in the program must have a pharmacy under the direction of a registered pharmacist, or at least a drug room under proper supervision. The hospital must also have a pharmacy committee consisting of doctors and pharmacists, and here the pharmacist must play an important role. All drugs prescribed under medicare must be approved, and the pharmacist must assume responsibility to see that this is followed.

I am convinced that the methods of improving the delivery of health care in the future will include greater use of the team approach. Not only will physicians practice in teams representing the various specialties and family physicians, but physicians, nurses, pharmacists, dentists, and various other allied health personnel will work as a team.

.

I am convinced that pharmacy students in the future will pursue a variety of pharmacy careers. Among these will be careers as hospital pharmacists; clinical pharmacists in a hospital setting; as a drug consultant both for the physician

and the patient, both in a hospital and in a pharmacy setting; and probably in an entirely new role as a member of the new health team....

Dr. Robert H. Ebert, dean, Harvard Medical School, in an address on "Changes in the Health System," ^{2/} spoke of the existing role of the pharmacist and then of his expanded role in the health system:

He [the pharmacist] has always been a skilled and knowledgeable craftsman in the compounding of prescriptions. He has been an advisor to patients since he possesses expert knowledge of therapeutics. Because of his expert knowledge of drugs and drug actions, he has been a source of special knowledge for the physician and has acted as a consultant to the physician. Finally, he has been a businessman....

.

... I see no reason why the pharmacist working with the physician might not assume primary responsibility for long-term care of certain patients, particularly those requiring continuous drug therapy. This would mean that the pharmacist would have to acquire certain skills in the examination of the patient and he would need to extend his knowledge of diseases.

I do not suggest that the pharmacist should relinquish his primary skill--namely, an expert knowledge of drugs--but I do believe that his role should be extended beyond the dispensing of medication. Certainly, he is likely to do this in the hospital setting. I foresee the day when the uniformity of all medication--with computer aid--will be the responsibility of the hospital pharmacist.

The future of the pharmacist lies in the direction of clinical medicine and the education of the pharmacist must reflect this need. The pharmacist in training needs to have a greater exposure to patients, a better understanding of disease and a greater opportunity to work with the physician in the direct provision of medical services....

In September 1970, Vernon E. Wilson, M.D., administrator, Health Services and Mental Health Administration, US Public Health Service, addressed a conference at the University of California as follows with respect to the possible place of the pharmacist in the health care system. ^{3/}

... One of the most critical problems in organizing the delivery of health services to meet the needs of today's society is the point of entry into the health care system.

There exists one health profession which has a unique characteristic for helping to accelerate entry into the system. The profession of pharmacy. The characteristic is geographic distribution. The fact is while we are beginning to locate health centers in urban neighborhoods and doctors' offices in suburban shopping plazas, pharmacists are already on the scene. They are, in short, ideally positioned to serve as a first point of contact between the patient and the health care enterprise.

At this time a great many suggestions are being advanced and developed for what might be called "instant physician assistants." Individuals with extremely limited preparation are being proposed for important health care roles. At such a moment pharmacy should carefully consider its future.

What is needed here is the pharmacist as a broad-gauged health professional, serving the patient as a special kind of health consultant. His responsibilities could range from the operation of a simple screening service and primary health counseling to referral to an appropriate source of advanced service. After advanced diagnosis and prescription, his function should include counseling--and follow up. The pharmacist could become a health education expert--and respond to or prevent a community health emergency. I recognize that some of the functions I am suggesting are being performed by some of the pharmacists, some of the time. But I feel--we should ask whether the role is emerging fast enough....

At the same conference, Edmund D. Pellegrino, M.D., vice president for health sciences, State University of New York at Stony Brook, spoke of new roles of the pharmacist in the health care system: 3/

... The evolution of the pharmacist from compounder and dispenser to drug expert, the establishment of university health science centers, and the changing character of the health care system: all make a closer intercalation of the two professions mandatory.

What I see then, is a movement of the pharmacist from the community pharmacy where he is now located to the institutionalized settings of three types--primary, secondary, and tertiary --with expanded clinical roles at each level; becoming a participant in the mainstream of health care; and assigning the distributive, procurement roles to assistants.

The new roles I describe will be created by the evolution of our health care system in response to the demand of the public for universal, accessible, comprehensive, available, preventive, and curative health services.

...[a] primary health care center may well be staffed by a relatively small number of physicians, assisted by larger numbers of assistants, nurses, social workers, and pharmacists ... [and] will require pharmacy services of several types-- storage, control, dispensing, administering drugs, advising physicians and nurses, and education of the public. Drugs used ... will be those essential for emergency treatment of infections, trauma, and minor symptomatic remedies.

The secondary level will consist primarily of elective and emergency major surgery, the diagnosis and treatment of the more complex medical disorders, short-term psychiatric care, community health, and preventive medicine. Community hospitals ... are being transformed into comprehensive community health centers and ... will be the first-line of backup for the primary health care centers. The pharmacist ... will have vastly expanded responsibilities in therapeutics, responsibilities which will bring him to the bedside, into the clinic, and into the health care team. He will need and use pharmacy assistants ... to label, distribute, and control medications under his supervision. The pharmacist will be the drug and medication expert on the health care team ... will mix all intravenous medications and possibly administer these and all other complex and dangerous medications ... will do drug interviews ... advise on choice of medications, run the drug information and poison control center, serve as coordinator and resource person for the formulary and the drug utilization committee ... be an educator for the continuing education of his colleagues ... and for the general public....

The tertiary level of care ... will be concentrated in the universities and urban medical centers ... the most complicated surgical procedures and diagnostic problems, techniques, and equipment will be expanded ... the clinical pharmacist's role will be assembled ... the clinical pharmacist's role will be expanded. He will need a more fundamental knowledge of pharmacology, a more profound perception of drug effects and usages in complicated, multi-disease, multimедication clinical situation. [His] colleagues will be academic clinicians and investigators. Acquaintance with the emergent field of biopharmaceutics will also be essential ... he will become more deeply involved in research, especially in clinical pharmacology....

Lastly, at the conference at the University of California, Dr. William S.

Apple, executive director, American Pharmaceutical Association, stated: ^{3/}

... In our pharmacy manpower pool of some 120,000 actively engaged practitioners, we have some 35,000 pharmacists who graduated in the last decade who could be trained rapidly to take over higher order functions.

If we could save only one hour per week for each 100,000 actively engaged physicians by employing a more efficient model of communicating drug information, we would be adding the equivalent of another 2,000 physicians available 50 hours per week for diagnosis and treatment.

If we are really serious about more effective utilization of our health manpower resources, group practice and the team concept, we are going to have to help physicians understand and accept the concept of interdependence and reciprocal respect.

While the dispensing function by human pharmacists is most likely to prevail through the Seventies and even the Eighties, there is no justifiable rationale for further delaying implementation of new roles for pharmacists in the delivery of health care services.

Triage is one of those functions pharmacists can provide to patients.

Should some pharmacists be trained to also function as primary physicians? Certainly the subject deserves more research attention than it has received.

In rural communities and other environments where the immediate availability of physicians is not likely, perhaps a pharmacist-nurse team could deliver a significant level and quantity of patient care through direct but remote physician control.

Keeling-Smith recently suggested that pharmacists may in the future be allowed to dispense more potent medicines ... without a prescription. Think of the physician man-hours that could be salvaged by assigning this preliminary treatment function to pharmacists. Think of the benefit patients who try to treat minor infections with aspirin might enjoy.

... I would like to mention the role of the pharmacist as the patient's health system navigator. The pharmacist can help the inexperienced or illiterate patients understand how to utilize the different systems effectively, especially how to gain access to one under emergency conditions.

... services to the community. This includes health education, health planning, environmental health, poison control, venereal disease control and drug abuse prevention....

In summary, the changing role of the pharmacist makes the pharmacy schools and colleges of our country a more important national resource, deserving of more and continuous Federal support.

INCREASE IN NUMBER OF PRESCRIPTIONS REQUIRES MORE PHARMACISTS

The continued development of the academic programs in all the health professions is essential to the health and well-being of the population. While the need for priorities is recognized, the increase in the number of physicians, for example, necessitates that the number of pharmacists be increased to fill the increased number of prescriptions which will result and to assist in other aspects of the delivery of health services.

The constantly increasing demand for pharmaceutical services by our increasing population necessitates an increased output of pharmacists. Between 1963 and 1970 the number of prescriptions filled annually for ambulatory patients has increased about 75 per cent. In 1970, 1.43 billion prescriptions were filled--about 55.4 million more than in 1969. Therefore, the continuing annual increase in the number of prescriptions alone is demanding that the community pharmacist and the hospital pharmacist devote more and more of their time to strictly professional services. In fact, it has been estimated that by 1978 community pharmacies will be called on to fill 3.1 billion prescriptions annually and that, because of the shortage of pharmacists, there will be a "prescription gap" of between 400 million and 1 billion, i.e., this number of prescriptions would go unfilled under the present system of pharmaceutical service. ^{4/}

The Office of Research and Statistics of the Social Security Administration recently completed an informal, technical analysis of the probable impact of third-party programs on retail pharmacy by 1975. ^{5/} This study shows that, on the basis of the current system of the delivery of pharmaceutical services and with 50 per cent of the population on third-party programs, the nation is likely to be faced with a critical shortage of pharmacy manpower by the middle of the decade.

In retail pharmacy (community pharmacy) the analysis shows that there will be an apparent gap (shortage) by 1975 of from 3,500 to 18,400 pharmacists and in hospital pharmacy a shortage of from 1,000 to 3,000 pharmacists. For all of the areas of employment the predicted shortage ranges from about 6,000 to 71,000 or more.

This shortage may be compensated by increasing the number of graduates through increased Federal funds or by the use of sub-professional personnel whose role and education can be developed by our schools and colleges of pharmacy.

We will now describe the manpower crisis facing our pharmacy schools. Following this, we will describe how pharmacy schools have used the Federal funds received in past years and estimate, based on a recent survey by the American Association of Colleges of Pharmacy, some of the future needs from Federal sources.

PHARMACY MANPOWER

The 74 schools in the Continental United States and Puerto Rico had 18,590 students enrolled in the last four years (15,638 in the last three years) in September 1970. During 1969-1970, they graduated 4,758 students with a bachelor of science or doctor of pharmacy degree, a number less than that required to replace those who leave the practicing pharmacist population annually. This data is presented in Table A and is determined on the basis of the January 1, 1970 pharmacist-to-population ratio of 63.2 per 100,000. This ratio was 68:100,000 in 1951 but, because of the increased population and the small number of graduates, it decreased to 61.2 in 1965. We are pleased that the ratio is again increasing in view of the increasing demands by the public for health services.

About 83 per cent of the pharmacist population of 128,843 is practicing in the 51,100 community pharmacies and about 8.5 per cent is practicing in 4,600

hospitals. The remaining 8.5 per cent is employed in the control, research, or product development laboratories of drug manufacturing plants; as medical service representatives to physicians; as teachers in our educational programs; in government; and in the Armed Forces.

In hospital pharmacies the manpower need is greater than the supply. While the total need of the approximately 7,100 hospitals is unknown, the American Hospital Association reported in 1970 that of the 6,651 hospitals registered by the Association only 55.1 per cent had full-time pharmacists; however, another 30.4 per cent used pharmacists on a part-time basis. ^{6/} Another survey conducted in 1969 revealed that 13,600 full-time and part-time pharmacists were employed in hospitals and there were 800 available positions.^{7/}

In addition to the demands of the hospitals, the profession is attempting to meet the pharmaceutical needs of the many nursing homes and extended care facilities. Through training courses offered by the schools and pharmaceutical associations, community pharmacists are being instructed for service as consultants to these facilities and to small hospitals. About 1,000 community pharmacists have received such instruction in the last few years.

The increasing number of women enrolling in pharmacy soon will have an impact on our manpower needs since the number of years they are active in the profession is much less than that for men. Women now constitute 22 per cent of the students enrolled in the last three classes of schools of pharmacy, whereas 10 years ago they made up but 10 per cent of these classes. Also, the rate of increase in the percentage of women students is accelerating; the increase from 15 to 20 per cent occurred in just three years whereas the increase from 10 to 15 per cent required seven years.

Still another factor having a significant impact on the need for pharmacy graduates is the age of pharmacists now active--20 per cent are 60 years of age and over, and another 20 per cent are in the 50 to 59 age group. Thus, it is estimated that one-third or more of the current supply of pharmacists is likely to leave the labor force before 1980. This situation alone will precipitate a manpower crisis!

To aid in meeting the increased manpower needs, our schools of pharmacy will continue to need the financial assistance provided by all the programs of legislation designed to extend the Health Professions Educational Assistance Act. It is important that all health professions participate in each of the programs, and for this reason institutional grants should continue to be made available to schools of pharmacy, veterinary medicine, optometry, and podiatry, in addition to medical, osteopathic, and dental schools. Also, scholarships should continue to be made available to students in need for all the health professions as currently provided.

The manpower problem in pharmacy was emphasized by Philip R. Lee, M.D., in an address before the American Pharmaceutical Association in April 1971. Dr. Lee, currently chancellor, University of California, San Francisco, and a former assistant secretary of the Department of Health, Education, and Welfare, stated:

... One dimension of the manpower crisis is illustrated by the hospital pharmacy. If hospitals were to be provided with round-the-clock pharmacists it would require a total of 35,000 pharmacists instead of the present 6,700. To provide high quality services throughout the hospitals in this country would require 40,000 pharmacists. These projections are based on the assumption that the pharmacist would continue to fill only his traditional role. Here, however, I must emphasize that 10,000 pharmacists might be adequate if programs can be developed to encourage proper use of supportive personnel. As increasing numbers of pharmacists function in the clinical pharmacy role, demands for greater numbers will increase. With this will also come a broader scope of service and responsibility and an even greater need for utilizing supportive personnel.

The demand for community pharmacists can also be expected to grow with new drugs and treatment of diseases that are now ineffectively controlled. National health insurance will increase demand for services and coverage of out-of-hospital prescription drugs. If present trends continue the number of out-of-hospital prescriptions will increase from 1.1 billion in 1970 to over 2 billion in 1980. This increase would fall primarily on community pharmacies. At the very time that significant increases in the workload in community pharmacies

occur, other factors will intensify the problem by decreasing the potential pool of community pharmacists. Increasing opportunities will be available in hospitals, extended care facilities, and nursing homes. In addition, the shortage of physicians will place a greater burden on the pharmacists, particularly as the number and complexity of available drug products increase.

.

... The geographic distribution of the schools in 43 states, the District of Columbia, and Puerto Rico is an important factor in providing a means for facilitating better geographic distribution of graduates. At the present time the schools enroll over 15,000 students and next year the number of graduates will exceed 4,500. These numbers are not adequate and at the present time the schools do not have the faculties or financial resources to markedly increase enrollment and output of graduates. (Emphasis added)

In summary, the changing role of the pharmacist is causing other health professionals to rely more than ever before on the pharmacist's knowledge. Combined with an increasing demand for prescription services and other manpower-depleting factors, the new role has placed pharmacy in a potential manpower crisis of overwhelming proportions.

USE OF FEDERAL FUNDS IN PRIOR YEARS

General Comments on Legislation to Extend the Health Manpower Training

Act. The existing legislation extended the purposes of the original law for two years. S. 1183 proposes an extension of three years, and S. 934 will provide a five-year extension.

A five-year extension will enable the health schools to plan more precisely the conduct of their total programs. For this purpose, the need for a continuing and stable program is essential. The construction and maintenance of physical plants, the employment and retention of additional faculty members, and the purchase of additional equipment all require careful and long-range planning in view of expanding enrollments.

These cannot be accomplished without adequate assurances of Federal funds over an extended period of years.

Use of Institutional (Formula or Basic Improvement) Grants. From FY 1970 funds \$10.1 million in institutional grants was received by 70 pharmacy schools. From FY 1971 funds institutional grants totalling \$9.6 million will be available to 66 schools in July 1971.

We understand that 12 schools did not qualify for these grants in FY 1971 because of the inability to meet enrollment requirements. However, the Secretary waived the requirements for five schools. This means that all 73 eligible schools applied for these grants in FY 1971, while only 70 applied in FY 1970.

Based on a survey by our Association, the \$10.1 million received in FY 1970 was used for these purposes: renovation, 13 per cent; professional and supportive staff, 36 per cent; associated fringe benefits, 5 per cent; supplies and equipment, 33 per cent; and other uses 13 per cent. This last category includes faculty travel to scientific and professional meetings, disadvantaged student tutoring, recruitment costs, office services, seminars on professional topics, library needs, repairs, and payment for visiting lecturers to upgrade knowledge and rekindle interest in and enthusiasm for scientific topics.

This same survey indicated how the schools will use these funds received in FY 1971. Attached is Table B showing the per cent of use for each of the two fiscal years pharmacy schools have received these funds and the average of both.

We are confident that continued availability of these funds in the amounts asked in S. 934 will support the ability of pharmacy schools to put out not only more graduates but also better-qualified pharmacists.

The institutional grant dollars authorized by S. 934 are computed by adding a base grant of \$50,000 per school and \$2,000 per student in pharmacy.

We can justify the need for a \$2,000 maximum authorization per student, at this time, on several grounds.

First, from the Association's cost analysis of pharmacy programs during 1965-1966, we estimate the current median cost of the same program at \$2,400 per year. For this amount we are reasonably sure that our schools can educate a pharmacist to perform those tasks he was capable of performing in 1965-1966. However, the pharmacist's new role is "patient-oriented" or clinically based, which requires courses to be conducted in a clinical setting. The clinical courses cost more than the 1965-1966 courses. As schools enter into this type of program, in the interest of better patient care, the cost of educating pharmacy students will increase.

Furthermore, recognizing the complexities of such clinical work, and the need for cooperative programs with hospitals and medical schools, we believe that \$2,000 of Federal money per student is probably the average amount we can spend wisely and in a business-like manner to achieve our new goals.

Secondly, we estimate non-Federal expenditures in pharmacy schools to increase from an estimated \$45.4 million in FY 1970 to \$52.9 million in FY 1972, \$58.5 million in FY 1973, \$63 million in FY 1974, \$67.6 million in FY 1975, and \$76.7 million in FY 1976. This data may change from year to year depending on the financial condition and fund-raising abilities of universities where pharmacy schools are located. However, for FY 1972, the first year under S. 934, we are reasonably sure that pharmacy schools will spend \$52.9 million in non-Federal funds. Authorizations under S. 934 for pharmacy would amount to about \$40.9 million in FY 1972. Thus, the matching provisions would be met.

Enrollment Incentives. First-year enrollments in schools of pharmacy have increased gradually through the years. However, some schools have experienced irregular enrollment patterns. There are many factors causing this,

one of which was the lack of a coordinated nation-wide recruitment program. This will soon be checked, we hope, by the recently inaugurated AACP pharmacy recruitment program.

The AACP recruitment efforts are directed toward all prospective students. We have spent considerable time working with the groups representing minorities to be sure that students of ability are not overlooked.

The Health Professions Educational Assistance Act currently requires that the schools assure an increase of 2.5 per cent or 5 students, whichever is greater, of the average first-year enrollments of the two years having the highest enrollment out of the last five years. In a majority of cases, our schools have complied with this requirement. However, 12 schools (16 per cent) were unable to assure these increases in FY 1971, primarily because of the use of an average of the two highest years enrollments. We suggest therefore that if this enrollment incentive is retained in the law, that the law be changed to require the increase to be based on the average of the last five years enrollments. This would be of great help to schools of pharmacy and would be without effect on other health schools as they already have capacity enrollments.

Sec. 771 (d)(4) of S. 934 suggests no enrollment requirement, but allows the Secretary to require other assurances as he may find necessary.

An alternative enrollment incentive could be adopted from the mechanism suggested by S. 1183. That is, an additional amount (over and above the institutional grant based on the number of students) could be awarded for each graduate in excess of the number of graduates in the previous year. We suggest that for each additional graduate an extra \$6,000, fully appropriated, would be sufficient incentive to assure increased enrollments.

This mechanism of enrollment incentives may be preferable to the current system because it would allow continuation of the basic support (currently 20 per

cent of the pharmacy school budgets) and increased incentive for greater output. We believe it would be catastrophic to support 20 per cent or more of a school's budget for several years and then withdraw that support because the school could not maintain a continuing enrollment increase year after year. Or, stated another way, there is an optimum enrollment capacity for a given faculty and a given facility. Although we do not know precisely what that is, we believe the capacity is being approached in several pharmacy institutions.

Special Project Grants. Pharmacy schools became eligible for special projects in FY 1970. Two grants were approved that year for a total of \$267 thousand. At Ohio State University \$222 thousand was granted to implement a system of educational development. At Florida A. & M., \$45 thousand was received for development of an accelerated curriculum and to stimulate interest in pharmacy careers. Both of these schools have indicated increasing needs for special project money in addition to institutional grant money.

A total of 137 special project grants was awarded to all health schools in FY 1970 for a total of \$48.5 million. Pharmacy schools received six-tenths of one per cent (0.6%) of these funds in FY 1970.

While 64 schools of pharmacy applied in FY 1970 for special project grants with first year activities totaling \$10.7 million, only two projects were funded for \$267 thousand, as stated above. Thirty-seven applications totaling \$2.0 million were approved but unfunded.

Fifty schools applied in FY 1971 for grants with first year activities totaling \$5.8 million. As of this time only one new application has been funded for \$109 thousand, and twenty-eight applications totaling \$1.9 million were approved but unfunded.

In a recent survey by the Association, 47 schools out of 57 indicated they would need special project grants in FY 1972. The total dollars needed amounts to \$6.2 million, or an average of \$109 thousand per school. Thus, extending the average amount to 73 eligible pharmacy schools, a total of \$7.9 million will be required in addition to institutional grants. However, four schools indicated they would not require special project grants if institutional grants were fully funded for the next five years.

Of those 47 pharmacy schools indicating a need for special project grants, the funds will be used

- ° to expand clinical pharmacy courses;
- ° to recruit, educate, and graduate increasing numbers of minority students;
- ° for drug abuse education for educators, health professionals, and the public;
- ° to institute computerized drug information retrieval systems;
- ° to establish drug information centers;
- ° to establish radiopharmaceutical specialty programs;
- ° to improve public health programs;
- ° to establish and expand audio-visual capabilities;
- ° for recruitment endeavors; and
- ° to plan health sciences core curriculums in conjunction with other health professions.

S. 934 provides increased authorizations for special project grants.

We commend Senator Kennedy for recognizing the greater need for funds in this category as indicated by the authorizations in his bill. In the bills introduced in the House, we note that H.R. 4155 would limit to financial straits one-half of the funds appropriated for special projects. This may be the preferable approach, since pharmacy needs 200 times the amount of money it received in

FY 1970 for this purpose. We suggest the Subcommittee consider limiting one-half of the special project authorization to schools having financial problems.

In past years, medical and dental schools have received nearly all of these funds for financial straits, leaving few dollars for innovation in pharmacy and the other health professions. In other words, by increasing institutional grants to help keep health schools, particularly medical and dental, out of financial trouble and limiting one-half of special projects money to financial straits, we believe there would be more money available to meet the objectives of Congress in the case of pharmacy.

Construction. At the present time 49 schools of the health professions have approved but unfunded grant applications. The Federal share of these applications is slightly more than \$494 million. Four pharmacy schools are in this category, with a Federal share of \$8.5 million and would provide 101 additional first year places.

Nineteen pharmacy schools have received \$19.4 million in Federal construction funds since 1963. The increase in first year places was 556.

In a survey made by the Association in March 1970 and recently updated, 24 schools plan construction in the period FY 1972-1974 with a total Federal share (21 schools) of \$46.4 million. If funded, these projects would increase the first year places by about 570. In addition, 15 schools have reported plans for construction beyond FY 1974 with a Federal share (calculated as 50 per cent of the total cost) of \$23.9 million.

In view of the need expressed above for an increase in the number of pharmacy graduates, there is a need for the replacement or rehabilitation of existing structures and the expansion of some schools to meet area needs. We note that the construction of new pharmacy schools as a part of university health

centers is preferred by an increasing number of health educators. Some pharmacy schools are already planning to move to university health centers. In addition, there is a need for some new schools particularly in areas where there have been marked recent increases in population.

We believe a strong case can be made for the allocation of 25 per cent of the Health Professions Educational Assistance Act construction funds to schools of pharmacy, optometry, podiatry, and veterinary medicine. These four health professions comprise 33 per cent of the health professions students and 38 per cent of the schools affected by S. 934.

It should be mentioned that Fordham University College of Pharmacy, a private institution, will graduate its last class in June 1972. This school could have continued operation if adequate Federal funds had been available to give stimulus to faculty and enrollment.

Student Loans. S. 934 will continue to provide direct loans to students as under the current legislation, and the maximum loan per student would be increased from \$2,500 to \$3,500.

S. 1183 would eliminate direct loans and place this financial aid program under the Higher Education Act, i.e., Federally insured loans would replace direct loans. The maximum loan per student would be \$5,000 (except \$2,500 for nurses) and the repayment period would be extended to 25 years.

With respect to Federally insured loans, a March 1971 survey by the Association revealed that nearly 60 per cent of the schools responding said that they did not consider this program successful for their students. The Senate Subcommittee will be interested to know that since the Administration's proposals for expanding the loan program were still under consideration by the House Committee on Education and Labor, the House Appropriations Subcommittee on Education eliminated the Administration's budget requests on that item on

April 7, 1971. Instead, the appropriations for most current programs, including direct loans for students, were increased by the House.

We are pleased to see this increase in direct loans for higher education students and urge the same action by the Senate on S. 934 for students of the health professions.

Our March survey also revealed that 56 per cent of the schools responding found the FY 1971 Federal loan funds received were inadequate.

Furthermore, whereas only an estimated 12 per cent of students in pharmacy were assisted by Federal loans in FY 1971, the schools estimated that an average of 33 per cent of their students would need assistance in FY 1972. This percentage increases slightly each year and in FY 1976 the survey revealed that 39 per cent of the students would require loans.

In those schools where the student body consists primarily of minority students, from 50 to 70 per cent of the students would require loans, according to the study. Thus, as the number of disadvantaged students in pharmacy schools increases, the greater will be the need for loan funds as well as for scholarship funds.

S. 934 would extend the loan forgiveness feature to pharmacists, podiatrists, and veterinarians. The rate of forgiveness remains at 10 per cent per year, if they practice in a shortage area, or 15 per cent per year, if in a rural area. S. 934 recognizes that the pharmacist can serve as an important member of any health service unit in such areas. Alone the pharmacist can provide a significant health service, particularly in a triage or screening function in the case of persons needing a physician's attention.

Since few health practitioners have taken advantage of the Federal loan forgiveness feature in prior years, we suggest that additional incentives are

necessary to encourage health professionals to establish practices in medically underserved areas. We recognize that the absence of colleagues and adequate medical facilities act as a primary impediment to getting providers of primary health care into these areas. While the Nation is deciding how to meet the increased demand for health care, perhaps by strategically locating health schools and hospitals, we believe there are two immediate solutions to these problems that should be tried.

First, loan forgiveness should be increased to 33-1/3 per cent and extended to private as well as Federal loans. Second, the young health practitioner must be able to see how he or she can make a living wage in a medically underserved area. What is needed here, since most medically underserved areas are also economically poor or otherwise disadvantaged, is a training program to acquaint prospective health personnel with the salary-producing capabilities of the myriad of Federal, State and local health care programs. Learning to properly utilize the health care payment plans, which in effect would guarantee the health professional an income, may be just the encouragement needed. Satisfying the economic doubts of the prospective health practitioners might aid materially in getting practitioners into underserved areas and thereby satisfy the health care needs of the people.

Scholarships. S. 934 provides for a maximum grant of \$3,500 per student, an increase of \$1,000 over the existing law. The formula for appropriations will be \$3,000 multiplied by 10 per cent of enrollment, again an increase of \$1,000 over the existing legislation.

S. 1183 will phase out the scholarship program provided in the current legislation. While students of medicine, osteopathy, and dentistry who receive grants prior to July 1, 1971 will continue to be eligible for grants, such

students in schools of pharmacy, optometry, podiatry, and veterinary medicine will be eligible only upon the determination of the Secretary.

Under this legislation only students of medicine, osteopathy, and dentistry from low-income or disadvantaged families will be eligible for scholarship grants after July 1, 1971. Again, such students in the remaining four health professions will be eligible only upon the determination of the Secretary.

In FY 1969 pharmacy schools received \$2.7 million for scholarship grants, and about 23 per cent of the students were assisted. In 1970 the figures are estimated to be \$3.1 million and 22 per cent.

In the Association's March 1971 survey, 53 per cent of 58 deans responding indicated that scholarship funds received in FY 1971 were inadequate. All of the four pharmacy schools with predominantly minority student bodies were in this group.

For FY 1972 the pharmacy schools estimated that an average of 28 per cent of the students would need scholarship aid. This need increases slightly each year, and for FY 1976 it is 35 per cent. In the case of the four pharmacy schools with minority student bodies, the corresponding figures are 41 per cent and 44 per cent.

On the basis of the 58 responses to the survey, it is estimated that the 73 schools of pharmacy will need \$4.8 million in FY 1972, \$5.1 million in 1973, \$5.6 million in 1974, \$5.9 million in 1975, and \$6.4 million in 1976.

NATIONAL ADVISORY COUNCILS

We believe it is important that a non-government body continue to advise the Federal government on the use of funds for Health Professions Educational Assistance. Although current advisory councils may overlap in some of their duties, the Administration's proposal to repeal existing authority for the

National Advisory Council is too drastic a remedy.

Therefore we recommend the Secretary be requested to describe the substitute council proposed by the Administration so that the Subcommittee might consider giving statutory authority to such body. Until such time as alternative advisory council proposals are developed, we urge retention of the present system.

FINANCING HEALTH EDUCATION

Over 70 per cent of the colleges and schools of pharmacy are public institutions, receiving a large portion of their funds from taxpayers rather than from tuition and fees. More than 74 per cent of pharmacy students are enrolled in these public institutions.

On the other hand, the so-called private schools, making up the remainder, are also receiving tax support in growing amounts. For example, Howard University, Columbia University, Long Island University, Temple University, and University of Pittsburgh are considered "private" institutions. See Table C for complete designation of public or private pharmacy schools.

According to the latest available estimate from the U.S. Office of Education and the National Education Association, the number of college and university teachers has increased from 438,000 in 1960-1961 to 833,100 in 1970-1971. By this estimate, public college and university teachers more than doubled, while the non-public college teachers merely increased by approximately 45 per cent.

For comparison purposes, pharmacy schools in 1963 had 900 full-time and 297 part-time faculty members. In 1971, pharmacy schools have 1,435 full-time and 630 part-time faculty, indicating the growth rate in pharmacy schools is probably less than that for higher education in general.

Higher education costs rose dramatically in this period. Current

expenditures and interest went from \$6 billion in 1960-1961 to \$21.5 billion in 1970-1971. Capital outlay increased from \$1.7 billion to \$3.1 billion, giving total increases in higher education of \$16.9 billion in ten years. See Table D.

The Carnegie Commission on Higher Education, in its report on Higher Education and the Nation's Health: Policies for Medical and Dental Education, "... identified the greatest priorities for higher education in the 1970s as being:

- 1) to provide greater equality of educational opportunity for all our youth,
- 2) to undertake reform and innovation, and
- 3) to provide more health care personnel.

All three of these priorities are involved in this report. We know of no single area in all of higher education where more conservative action can be taken now than in medical and dental education...."

The Carnegie report further states that more allied health personnel are needed:

... The current ratio of all health care personnel to doctors is about 10 to 1; in the long run we see this ratio rising substantially. We particularly favor expanded training of medical associates who can work under the general supervision of doctors and expanded training of medical assistants who can work under the doctors' specific directions. We regard as especially promising the Medex program of training medical corpsmen with military experience to become doctor's assistants, and we note that as many as 3,000 a year might be trained with an all-out effort. We believe such an all-out effort is unlikely, however, and we estimate that by the end of this decade about 3,500 associates and assistants may be trained each year. The public, of course, will need to be willing to accept the services of these associates and assistants, as they do in some other countries, and we believe they will. We similarly suggest the training of dental associates and dental assistants. Colorado, Duke, and Washington are among the universities now giving leadership in these directions.

Most of the allied health personnel will be trained in comprehensive colleges and community colleges, and their roles in this area will greatly expand. Allied health personnel can be trained more quickly and less expensively

than doctors and dentists, and their availability will make possible the better use of the time and skill of doctors and dentists. Primary emphasis should be placed on increasing the supply of allied health personnel....

We believe that pharmacists will be an increasingly important associate of the physician. This is already an accomplished fact in some areas. It will become more so in the future.

On financing health education, the Carnegie Commission recommends:

- ° That the Federal government meet more of the costs of medical and dental education. It already supports most of the costs of medical research. Doctors can and do move from state to state, and some states are reluctant to educate M.D's for practice elsewhere.
- ° That the states support private medical and dental schools.
- ° That the levels of support among states be more nearly equalized. Some states exploit the investment other states make in medical education.
- ° That both the federal government and the states seek reforms and improvements as they expend their funds.

Other groups have urged more Federal support for health profession schools too. For example, the President's Task Force on Higher Education, chaired by James M. Hester, President of New York University, wrote in August 1970 that:

Health care is in crisis in the United States. High costs and scarcity of manpower are major national problems. Correspondingly, the cost of education in medicine, dentistry, and allied health care professions is so great that the establishment of new schools or expanding existing ones is exceedingly difficult. Compounding the difficulty is the restriction of federal and some state expenditures for health care and research.

To prevent the present crisis from assuming even more serious dimensions, it is an urgent need of the American people that the Federal Government underwrite the financial responsibility for building new and expanded facilities for medical and dental education and the allied health care professions. Similarly, the Government should meet the costs of such education not covered by any other sources of income.

Furthermore the Task Force Report stated:

The health professional schools of this country are clearly national resources. The indispensable role they play must receive adequate federal support if the health needs of our citizens are to be met.

Pharmacists have been imaginative in holding down drug costs. Of course, the Congress has stimulated their thinking and deserves partial credit for the stabilized condition of drug and prescription prices. As the same time, costs of other health services continue to increase. See Table E. These increases point to the priority areas needing reform. We believe pharmacists can effect equally imaginative methods to hold down soaring medical costs when they are integrated fully in the patient-care or clinical role.

The expansion of pharmacy curriculum into clinical areas will increase the cost of educating pharmacists. In the long run, however, we predict untold savings of consumer dollars will result from Federal support of reforms and legislative measures such as S. 934.

We believe that increased Federal support of pharmacy schools is needed if the health needs of our nation and the goals of reform are seriously desired.

COMMENTS ON OTHER BILLS

Nurse Manpower Training Act. We have not had the opportunity to fully explore the programs or requests made by S. 1331 or S. 1614.

We are aware of the increasing demands placed on nurses in many areas. Pharmacists are taking over the drug administration chores of nurses in some institutions to release nurses for other duties. This has provided better patient care in nearly every case because it reduces the number of people and paper work involved in handling prescribed drugs under the traditional systems.

In general, we believe the nursing profession should be treated equitably

by the Federal government. On this basis, we recommend that Congress consider additional support for nursing.

Military Selective Service Act. One special concern of pharmacy schools is the effect of the amendments to the Military Selective Service Act recently reported out by the Senate Armed Services Committee. Our concern is this: Elimination of undergraduate student deferments will subject pharmacy students to the draft and reduce total enrollments sufficiently to cause non-compliance with enrollment incentive increase requirements of the Health Professions Educational Assistance Act. Thus, the potential drafting of 19 year old, second-year pharmacy students, could make almost all pharmacy schools ineligible for construction grants and institutional (or basic improvement) grants for a period of time nearly equal to the life of this legislation. This means that currently expected pharmacy enrollments may not be possible until draftees are released and again enter the educational system.

We suggest therefore that the Subcommittee consider the impact of the draft law and make suitable adjustments in the Health Manpower bill to rectify this situation.

We add that pharmacy students deserve no special treatment by the draft laws but do request that they be treated as the other health professions are now treated. If the President and the Selective Service System continue student deferments for health students, pharmacy students should be included. This would also take care of the possible loss of grants under the bills being considered by this Subcommittee.

In conclusion, we thank Chairman Kennedy and the Subcommittee for this opportunity to submit the views of pharmacy educators. The American Association of Colleges of Pharmacy fully supports the Health Professions Educational

Assistance Amendments of 1971 (S. 934). We urge the Subcommittee to act favorably on this legislation so that the objectives of supplying health manpower needs of our nation will be met.

We are grateful for the support given pharmacy education in past years. We pledge to show our sincerity by working for better health for all Americans.

BIBLIOGRAPHY

- 1/ Am. J. Pharm. Educ. 34, 593 (1970).
- 2/ J. A.Ph.A., NS 9, 402, August 1969.
- 3/ Challenge to Pharmacy in the 70's, Conference Highlights, Public Health Service Publication No. 2146, U.S. Government Printing Office (1971)
- 4/ Rodowskas, C. A., Jr., J. A.Ph.A., NS 10, 196 (1970).
- 5/ "Pharmacy Manpower Tomorrow," T. Donald Rucker and William J. Sobaski, presented at the American Association of Colleges of Pharmacy/American Pharmaceutical Association meeting at the Ninety-eighth Annual Meeting of the American Public Health Association, Houston, Texas, October 25, 1970.
- 6/ Guide Issue of Hospitals, J.A.H.A., August 1970.
- 7/ Health Manpower Resources, Report No. 1, July 1970, Bureau of Health Manpower Education, National Institutes of Health, Department of Health, Education, and Welfare.

ATTACHMENT NO. 1

Resolution

on

Health Professions Educational Assistance Amendments of 1971

Whereas, the American Association of Colleges of Pharmacy believes that continued and increased federal assistance is essential for the growth and stability of pharmacy schools, and,

Whereas, the Association believes all health professions must be supported by federal funds for construction grants, institutional capitation grants, special project grants, scholarship grants, and loan funds, and,

Whereas, the AACP is opposed to the Nixon Administration Health Manpower Bills (S 1183 and HR 5614) because of the elimination of pharmacy from the Capitation Grants section and the uncertainty of adequate funding for pharmacy in the Special Projects Grants section, and,

Whereas, the Association believes there is great merit in the Project Grants for Training and Traineeships section in Rep. Paul Roger's Bill (HR 4155) and, with minor changes in other sections, the Bill could be acceptable to pharmacy, therefore,

Be it resolved, that the AACP hereby endorses the proposed Health Professions Educational Assistance Amendments of 1971 (HR 4171 and S 934), introduced by Rep. Harley Staggers and Senator Edward Kennedy, and,

Be it further resolved, that constituent members support the concepts of HR 4171 and S 934 and work for their passage and for the incorporation of Rep. Roger's proposals for Project Grants for Training and Traineeships into the final law.

(Adopted by the American Association of Colleges of Pharmacy,
March 28, 1971)

TABLE A

Estimated Supply of Pharmacists, 1969-1976

Date	Population (thousands) ^{1/}	Active Pharmacists Needed ^{2/}	Total Pharmacists ^{3/}	Replace- ments Needed ^{4/}	Graduates ^{5/}
1969	205,008	125,460	139,400	4,880	4,288
1970	207,147	128,843	143,159	5,010	4,758
1971	210,166	132,825	147,583	5,165	4,575
1972					4,586
1973					4,818
1974	218,179	137,890	153,211	5,362	5,383
1975					5,703
1976	224,020	141,580	157,311	5,506	5,941

^{1/} Population figures are for December 31 of previous year. Includes civilians in 50 states, District of Columbia, Puerto Rico, and Virgin Islands, and the Armed Forces in the United States and abroad.

^{2/} Calculated on the basis of the 1970 ratio of 63.2 active pharmacists per 100,000 population.

^{3/} Calculated on the basis of active pharmacists representing 90 per cent of total pharmacists in profession.

^{4/} Replacements considered to be 3.5 per cent of total pharmacists.

^{5/} 1969 and 1970, actual number from 74 schools; 1971 through 1973, calculated from 1970-1971 enrollments; 1974-1976, calculated as 82 per cent of projected enrollments from the American Association of Colleges of Pharmacy, A Study of Program Costs, Facility Needs, and Faculty Requirements, 1967-1969.

Note: Excludes Hampden College of Pharmacy, an unaccredited college.

TABLE A-1

Number of Accredited Schools of Pharmacy, Students, and Graduates
1963-1964 through 1975-1976

Academic Year	Number of Schools	Number of Students ^{1/}		Number of Graduates ^{2/}
		Total Last Three Years	Third Last Year	
1963-1964 ...	76	10,405	4,445	2,218
1964-1965 ...	75	12,078	4,483	3,388
1965-1966 ...	74	12,495	4,647	3,692
1966-1967 ...	74	13,221	5,234	3,799
1967-1968 ...	74	14,274	5,616	4,039
1968-1969 ...	74	14,932	5,469	4,288
1969-1970 ...	74	15,292	5,521	4,758
1970-1971 ...	74	15,638	5,876	4,575
Projections:				
1971-1972 ...	74	17,749	6,565	4,586
1972-1973 ...	73 ^{3/}	18,949	6,956	4,818
1973-1974 ...	73	19,772	7,246	5,383
1974-1975 ...	73	20,566	7,454	5,703
1975-1976 ...	73	21,229	7,648	5,941

^{1/} Sources: 1963-1964 through 1970-1971 data from American Association of Colleges of Pharmacy supplemented by reports from the University of Puerto Rico. 1971-1972 through 1975-1976 projections of total students in last three years and in third last year from A Study of Program Costs, Facility Needs, and Faculty Requirements of Schools of Pharmacy, 1967-1969, American Association of Colleges of Pharmacy.

^{2/} 1970-1971 through 1972-1973 calculated from 1970-1971 enrollments. 1973-1974 to 1975-1976 calculated as 82 per cent of third last year enrollments.

^{3/} Fordham University College of Pharmacy ceased enrolling students September 1968 and will cease operating June, 1972.

Note: Excludes Hampden College of Pharmacy, an unaccredited college.

TABLE B

USE OF INSTITUTIONAL GRANTS IN PHARMACY SCHOOLS

RECEIVED IN FY 1970 and 1971 ^{1/}

<u>Use</u>	<u>1970</u>	<u>1971</u>	<u>Average</u>
Renovation	13%	10%	11.5%
Professional and Supportive Staff	36%	42%	39.0%
Associated Fringe Benefits	5%	5%	5.0%
Supplies and Equipment	33%	30%	31.5%
Other ^{2/}	13%	13%	13.0%
	100%	100%	100.0%

^{1/} Based on survey in March 1971 of 57 schools, out of 70 receiving funds in FY 1970 and 66 receiving funds in FY 1971.

^{2/} Faculty travel, disadvantaged student tutoring, recruitment brochures, repairs, visiting lecturers, office services, seminars, library, etc.

TABLE C *

LOCATION AND OWNERSHIP OF SCHOOLS OF PHARMACY

Location	School	Ownership
	Total, 75 schools	
Alabama	Auburn University School of Pharmacy, Auburn Samford University (Howard College) School of Pharmacy, Birmingham	Public Private
Arizona	University of Arizona College of Pharmacy, Tucson	Public
Arkansas	University of Arkansas School of Pharmacy, Little Rock	Public
California	University of California School of Pharmacy, San Francisco University of the Pacific School of Pharmacy, Stockton University of Southern California School of Pharmacy, Los Angeles	Public Private Private
Colorado	University of Colorado School of Pharmacy, Boulder	Public
Connecticut	University of Connecticut School of Pharmacy, Storrs	Public
District of Columbia	Howard University College of Pharmacy, Washington	Private
Florida	Florida Agricultural and Mechanical University School of Pharmacy, Tallahassee University of Florida College of Pharmacy, Gainesville	Public Public
Georgia	Mercer University, Southern College of Pharmacy, Atlanta University of Georgia School of Pharmacy, Athens	Private Public
Idaho	Idaho State University College of Pharmacy, Pocatello	Public
Illinois	University of Illinois at the Medical Center College of Pharmacy, Chicago	Public

TABLE C * p.2

Location	School	Ownership
Indiana	Butler University College of Pharmacy, Indianapolis	Private
	Purdue University School of Pharmacy and Pharmaceutical Sciences, Lafayette	Public
Iowa	Drake University College of Pharmacy, Des Moines	Private
	University of Iowa, College of Pharmacy, Iowa City	Public
Kansas	University of Kansas School of Pharmacy, Lawrence	Public
Kentucky	University of Kentucky College of Pharmacy, Lexington	Public
Louisiana	Northeast Louisiana State College of Pharmacy Monroe	Public
	Xavier University of Louisiana College of Pharmacy, New Orleans	Private
Maryland	University of Maryland School of Pharmacy, Baltimore	Public
Massachusetts	Hampden College of Pharmacy, Williamansett ^{1/}	Private
	Massachusetts College of Pharmacy, Boston	Private
	Northeastern University College of Pharmacy, Boston	Private
Michigan	Ferris State College of Pharmacy, Big Rapids	Public
	University of Michigan College of Pharmacy, Ann Arbor	Public
	Wayne State University College of Pharmacy, Detroit	Public
Minnesota	University of Minnesota College of Pharmacy, Minneapolis	Public
Mississippi	University of Mississippi School of Pharmacy, University	Public
Missouri	St. Louis College of Pharmacy, St. Louis	Private
	University of Missouri at Kansas City School of Pharmacy, Kansas City	Public
Montana	University of Montana at Missoula School of Pharmacy	Public

TABLE C * p.3

Location	School	Ownership
Nebraska	Creighton University School of Pharmacy, Omaha	Private
	University of Nebraska College of Pharmacy, Lincoln	Public
New Jersey	Rutgers, The State University College of Pharmacy, Newark	Public
New Mexico	University of New Mexico College of Pharmacy, Albuquerque	Public
New York	Albany College of Pharmacy of Union University, Albany	Private
	Long Island University, Brooklyn College of Pharmacy, Brooklyn	Private
	Columbia University College of Pharmaceutical Sciences of the City of New York, New York	Private
	Fordham University College of Pharmacy, Bronx	Private
	St. John's University College of Pharmacy, Jamaica	Private
	State University of New York at Buffalo School of Pharmacy, Buffalo	Public
North Carolina	University of North Carolina School of Pharmacy, Chapel Hill	Public
North Dakota	North Dakota State University College of Pharmacy, Fargo	Public
Ohio	Ohio Northern University School of Pharmacy, Ada	Private
	Ohio State University College of Pharmacy, Columbus	Public
	University of Cincinnati College of Pharmacy, Cincinnati	Public
	University of Toledo College of Pharmacy, Toledo	Public
Oklahoma	Southwestern State College School of Pharmacy Weatherford	Public
	University of Oklahoma College of Pharmacy, Norman	Public
Oregon	Oregon State University School of Pharmacy, Corvallis	Public
Pennsylvania	Duquesne University School of Pharmacy, Pittsburgh	Private
	Philadelphia College of Pharmacy and Science, Philadelphia	Private
	Temple University School of Pharmacy, Philadelphia	Private
	University of Pittsburgh School of Pharmacy Pittsburgh	Private

TABLE C * p.4

Location	School	Ownership
Rhode Island	University of Rhode Island College of Pharmacy, Kingston	Public
South Carolina	Medical College of South Carolina School of Pharmacy, Charleston	Public
	University of South Carolina School of Pharmacy, Columbia	Public
South Dakota	South Dakota State University College of Pharmacy, Brookings	Public
Tennessee	University of Tennessee College of Pharmacy, Memphis	Public
Texas	Texas Southern University School of Pharmacy, Houston	Public
	University of Houston College of Pharmacy, Houston	Public
	University of Texas College of Pharmacy, Austin	Public
Utah	University of Utah College of Pharmacy, Salt Lake City	Public
Virginia	Virginia Commonwealth University School of Pharmacy, Richmond	Public
Washington	University of Washington College of Pharmacy, Seattle	Public
	Washington State University College of Pharmacy, Pullman	Public
West Virginia	West Virginia University School of Pharmacy, Morgantown	Public
Wisconsin	University of Wisconsin School of Pharmacy, Madison	Public
Wyoming	University of Wyoming College of Pharmacy, Laramie	Public
Puerto Rico	University of Puerto Rico College of Pharmacy, Rio Piedras	Public

1/ Not listed by the accrediting body.

Source: American Association of Colleges of Pharmacy

* Reproduced from National Resources Statistics, 1969, National Center for Health Statistics, Health Services and Mental Health Administration, Department of Health, Education, and Welfare.

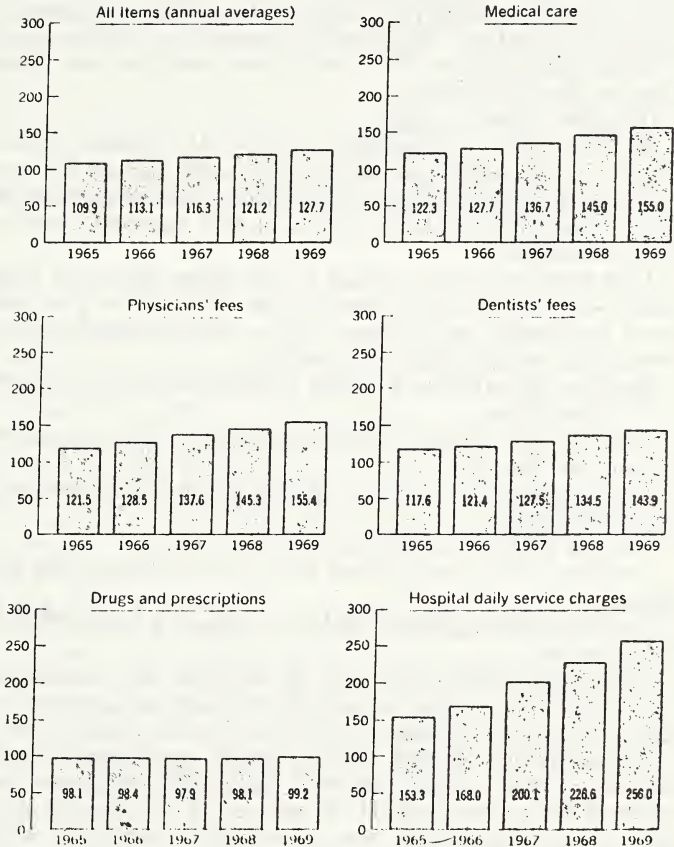
TABLE D
THE MAGNITUDE OF THE AMERICAN
EDUCATIONAL ESTABLISHMENT
1960-1970

	<u>1960-1961</u>	<u>1970-1971</u>
<u>Institutions</u>		
Universities, colleges, and junior colleges	2,000	2,525
<u>Students</u>		
College and university full- and part-time students enrolled for credit toward degrees		
Public institutions	2,115,893	5,313,000
Nonpublic	<u>1,466,833</u>	<u>2,064,000</u>
Total	3,582,726	7,377,000
<u>Teachers</u>		
College and university teachers		
Public	241,000	569,000
Nonpublic	<u>197,300</u>	<u>264,100</u>
Total	438,300	833,100
<u>Administrators and Supervisors</u>		
College and university presidents	2,000	2,525
Other college administrative and service staff	<u>46,000</u>	<u>88,000</u>
Total	48,000	90,525
<u>Board Members</u>		
College and university trustees	35,000	25,000
<u>Cost (in billions)</u>		
Current expenditures and interest		
Higher education		
Public	\$3.3	\$13.1
Nonpublic	<u>2.7</u>	<u>8.4</u>
Total	\$6.0	\$21.5
Capital outlay		
Higher education		
Public	\$0.9	\$ 2.6
Nonpublic	<u>0.8</u>	<u>0.5</u>
Total	\$1.7	\$ 3.1

Figures based on latest available estimates from the U.S. Office of Education and the National Education Association.

Saturday Review/September 19, 1970

TABLE E

*The crisis in health care delivery and health manpower 21***CHART 3**
Consumer
price index:
Indexes for
all items and
for medical
care, 1965-1969

SOURCE: U.S. Social Security Administration, *Medical Care Prices Fact Sheet, 1966-1969*, Research and Statistics note no. 2, February 23, 1970.

Reproduced from: Higher Education and the Nation's Health: Policies for Medical and Dental Education, The Carnegie Commission on Higher Education, October 1970.

HEALTH PROFESSIONS EDUCATIONAL ASSISTANCE AND NIH HEALTH SERVICES
AND MENTAL HEALTH ADMINISTRATION

Dr. ORR. This statement will express the needs of the 47 schools of pharmacy for the various programs being developed in amendments to the Health Professions Educational Assistance Act and also just a few comments on the programs of the NIH and health services and mental health administration.

The next few pages primarily relate to the provisions of the legislation and comparison between the House bills and the Senate bills.

Senator MAGNUSON. We should have kept Senator Humphrey here. That is his profession.

Dr. ORR. That is right.

We did make a presentation before the Senate Subcommittee on Health a few weeks ago outlining the new role of the pharmacists in health care delivery. This is attached as an amendment to this report and if time permits Dr. Bachmann will elaborate just a bit when I have concluded.

This takes us over to page 4. We have following page 4 table A which summarizes the authorizations which affect pharmacy and compares the Senate and House bills as to the amounts for the various areas. You might find this useful.

Senator MAGNUSON. Are you talking about the authorization?

Dr. ORR. Yes.

Senator MAGNUSON. Because we don't have an authorization bill out on all this yet.

Dr. BLIVEN. Yes; we are talking about the authorization bill and appropriations.

Senator MAGNUSON. That is not a law yet.

Dr. ORR. It is a comparison between the bills of the House and the Senate.

On construction grants, we have outlined a little bit of the statistical information.

We believe a strong case can be made for the allocation of a part of the construction funds to schools of pharmacy, optometry, podiatry, and veterinary medicine. These four health professions comprise approximately 33 percent of the health professions students and 38 percent of the schools affected by S.934; pharmacy schools alone account for approximately 25 percent of the schools affected. Therefore, we believe that 25 percent of the construction funds should be designated for pharmacy, optometry, podiatry and veterinary medicine.

In past years, these four professions have received approximately 5 percent of the construction funds. Pharmacy alone has four schools approved for construction, but cannot build because of a lack of funds. This amounts to \$8.5 million for the Federal share. Because of the need for replacement and rehabilitation of existing structures, and expansion of some schools to meet area needs and enrollment increases, we believe this request is fully justified.

Senator MAGNUSON. Before you leave that, you state on page 5, "In general, most of our schools do not believe that guaranteed Federal loans for construction are appropriate."

Why?

Dr. ORR. I think the prime reason is that most educational institutions are not income-producing institutions. We are on State appropriations and the amount of funds available is just not predictable to any degree of accuracy.

Senator MAGNUSON. Why can't you make a loan?

Dr. ORR. I presume we could.

Mr. Skinner.

Dr. SKINNER. In certain cases, some schools might like to have a loan from a bank and this guarantee would be coupled in that case. But schools do not generate income with which they could pay back loans to the banks.

Senator MAGNUSON. We have a lot of construction loans for all phases of higher education. All your dormitories in the University of Washington we built through construction loans.

Dr. ORR. Of course, but rent is being paid in by students.

Senator MAGNUSON. I don't want you to rule out construction loans because if you did that you would end up you would want all Federal money.

Dr. SKINNER. Our schools have said this is not a preferred method of spending—

Senator MAGNUSON. It is preferred if you can secure the loan.

Dr. SKINNER. Yes, sir. They would like to have it as an added—

Senator MAGNUSON. I know they would like to have a direct Federal grant. I understand that. We have been here 6 weeks listening to it now. We have some limitations and capabilities, too. We would like to encourage as much local participation as we can.

In our State, Jack, if we were going to abolish construction loans and just get Federal appropriations, the legislature would never give you a nickel, would they?

Dr. ORR. I guess not.

Senator MAGNUSON. I know them. I served there. The whole woof and weave of all this testimony is greater reliance year by year on Federal appropriations. Sometimes people have to realize that we have a bigger deficit than the State. It is like they talk about revenue-sharing. We are going to share the deficit, \$24 billion or more this year.

What you are talking about, it does not mean that we are not going to have a big Federal budget. What we are talking about here, too, is the priorities on what we use it for.

All right. Go ahead.

Dr. ORR. In the area of student loans, we refer again to a couple of paragraphs describing the need for loans.

In fiscal year 1971, 60 schools of pharmacy—82 percent—utilized the funds. The amount of loans range from less than \$500 to the maximum of \$2,500 per student. While the loan ceiling in S. 934 is now \$3,500 per student, we feel that an average amount of \$1,000 per student will be adequate to take care of the needs in our schools. Therefore, if, as indicated by our schools, 33 percent of our students (6,152) need loan funds, pharmacy schools will need approximately \$6.2 million for this purpose.

Scholarships—In fiscal year 1969, 23 percent of pharmacy students were assisted with scholarship grants. In fiscal year 1970, 22 percent. We estimate that 28 percent of the pharmacy students will need scholarship aid in fiscal year 1972.

Senator COTTON. What is the length of the course of pharmacy?

Dr. ORR. This is a 5-year program beyond high school. It consists of prepharmacy the first 2 years; the last 3 years are primarily professionals.

Senator COTTON. So that those who need loans have to face 5 years?

Dr. ORR. This is true.

In the case of four pharmacy schools with primarily minority student bodies, the corresponding figure is 41 percent. The schools estimate that they will require \$4.8 million in fiscal year 1972.

Senator MAGNUSON. Are scholarships for mainly the last 2 years?

Dr. ORR. No. At the present time, funds are available to students for any of the years they enroll in the college of pharmacy.

Senator MAGNUSON. Don't most of the scholarships occur after they have been in a while?

Dr. ORR. The majority.

Senator MAGNUSON. It would be the older students?

Dr. ORR. That is right.

Senator COTTON. Does the college of pharmacy provide there its course for the first 2 years of college?

Dr. ORR. No.

Senator COTTON. Do your students take 2 years at the university and then come to your—

Dr. ORR. This will vary. At our university, the students enter the college of pharmacy from high school. The courses they take in the first 2 years are essentially in the arts and sciences.

Senator COTTON. That would be true when they get their general grounding and their final 3 years at the same institution.

Dr. ORR. This is true.

We also take transfer students from our intercollege system and from community colleges.

Dr. BACHMANN. In contrast to my institution, they go to another college for 2 years and we admit them for the last 3 years.

Dr. ORR. In some of our schools, we call them O-5. They may take all their training in one place. Some are 1-4; some are 2-3. We have these variations.

It is extremely important that the appropriations match the level of authorizations for pharmacy in fiscal year 1972. When pharmacy schools first became eligible for institutional grants in fiscal year 1970, the enrollment jumped approximately 800 students (15-plus percent). This was done at a time when the law required only a 2½ percent or five-student increase, whichever was greater, per school.

Because S. 934 continues the enrollment increase requirement in pharmacy schools who are already carrying a heavy burden because of their earlier desire to increase the supply of pharmacists, and because several State governments are reducing appropriations to university budgets, we believe the schools are depending heavily on Federal support.

Senator Magnuson, certainly with our two schools in the State of Washington, with the coming biennium I would say we are depending very heavily on these kinds of funds.

Senator MAGNUSON. The problem we have is that everybody talks about S. 934. We can't appropriate any money until it becomes a law, and the House version is different.

Dr. ORR. That is true, but we have to anticipate.

Senator MAGNUSON. I don't know; the President may veto it. It is in conference. We were trying to rush it through in the Senate so that they could go to conference. They may be in conference Monday or Tuesday. But we have to mark this bill up. We can't appropriate money that is not authorized. It could come up in a supplemental later on. But everybody talks about the law that is not a law. We would be subject to a point of order if we appropriated money that was not authorized.

Now, if they get through with it, then the budget is going to have to send up an estimate to us based upon the new law. When that will come along, we don't know. We are going to mark this bill up next week. All the witnesses keep testifying on something that doesn't exist.

Dr. ORR. All we know, of course, is what we hope might come to pass.

Senator MAGNUSON. It is possible that, if they send up something, we could get at it before we mark up this bill, but that would have to be within the week. I don't know what the budget will send up. They may take a look at that bill. The President may sign it and say it is a good bill. Then it has to go through the budgetary process. We have to deal with what we have on the books now.

Dr. ORR. I think the feeling here is for at least equal support to what we have had in the past.

Senator MAGNUSON. Yes. I don't think the time element, when it becomes a law, when the budget comes up, will particularly affect what you people are talking about here because what you are talking about is something that we can do within the present authorization.

Dr. ORR. Essentially, our recommendation is that the entire authorization of \$20.5 million be recommended by this committee if you can do that.

Senator MAGNUSON. How naive can you get? Full funding?

Dr. ORR. Full funding.

Senator MAGNUSON. If you are going to have full funding, there is no use of having an appropriations committee. Cotton and I might as well relax. You can't have full funding. You have to cut the cloth here to what you can get.

Off the record.

(Discussion off the record.)

Senator MAGNUSON. On the record.

Dr. ORR. I am under "Special projects."

Pharmacy schools became eligible for special project grants in fiscal year 1970. Two grants were approved that year for a total of \$267,000 (0.6 percent of all special project funds). In fiscal year 1971, only one project was approved for \$109,177.

In past years, medical and dental schools have received nearly all of these funds for continuing grants and for financial straits, leaving few dollars for innovation in pharmacy and the other health professions. Because S. 934 establishes a separate section for schools in financial distress situations and authorizes \$150 million for fiscal year 1972 for special projects, we are much encouraged. Many pharmacy schools have developed a number of innovative programs which can now be funded.

Some pharmacy schools have been very active in developing educational programs for preventing drug abuse through the education of pharmacists, teachers, and other community workers. We expect this trend to grow as more funds are available. Therefore, we urge the subcommittee to recommend full appropriations for special projects.

FINANCIAL ASSISTANT GRANTS

This new section in S. 934 authorizes \$50 million for fiscal year 1972.

Senator MAGNUSON. What new section are you talking about?

Dr. ORR. The new section on financial assistant grants.

Mr. Skinner can explain that.

Senator MAGNUSON. Yes; but it is not a law. We can't consider this.

You are a lawyer. Don't you understand that?

Dr. SKINNER. Yes.

Senator MAGNUSON. Then why do you talk about something that is not authorized?

Dr. SKINNER. This is only for your information, how we feel about it.

Senator MAGNUSON. We have all kinds of information on the bill. We have a storeroom full of information on that.

Dr. SKINNER. Maybe it would be best for Dr. Orr to comment on the NIH programs and HSMHA programs which are continuing.

Dr. ORR. Let me move on to the NIH and HSMHA programs.

Pharmacy schools receive grants from several NIH programs, including the general research support (GRS) program of the NIH Division of Research Resources and from the Institute of General Medical Sciences. These grants support research in pharmaceutical chemistry, pharmacology, and other areas, as well as fellowships for young scientists.

Appropriations for GRS grants have been kept level by Congress for the past 3 years, while the funds actually available have dropped steadily. We recommend that the Senate increase the appropriations for the Division of Research Resources to a total of \$76,069,000.

Senator MAGNUSON. For instance, that can be done under the present law. You don't have to talk about something that is out here in the wild blue yonder.

Dr. ORR. The other recommendations have to do with the Institute of General Medical Science, the National Library Medicine programs.

Senator MAGNUSON. You don't need any authorization to do that or in the Library program.

Dr. ORR. Right.

Senator MAGNUSON. As a matter of fact, if you could come anywhere near what you could get under the present authorizations you would be doing pretty well, without talking about something else.

Dr. ORR. In conclusion, we want to thank you, Senator Magnuson, and this subcommittee for this opportunity to testify.

If you have a few minutes, I wonder if Dr. Bachmann could make a statement.

Senator MAGNUSON. Yes; we will be glad to hear from him.

As I have said, we will put all these statements in the record in full and the charts that you have which are very helpful to us.

Dr. BACHMANN. I am Dean Bachmann from West Virginia.

I want to make a point in connection with enrollment increases.

We have been funded for 2 years under the old proposal. With some of the formulas I have heard about, if no increases, being denied funds completely, we will be in serious trouble.

The other aspect of it is especially in my own institution we went whole hog the first year and we increased our appropriation for our enrollment much beyond that we are required to have next year.

We are required to have 52 under the old law. We went to 64.

So, if it is a formula that insists that we have a major increase or denial of funds, we will be in serious trouble; we will have to cut back.

Another thing. We are in a medical center. We have one unit, basic science, that teaches medicine, dentistry, pharmacy. We have limited facilities and limited staff. Now, if all our schools are required to have major enrollment increases, this will make some problems for us.

We would like the committee to consider this kind of situation.

Senator MAGNUSON. We will take a look at this. I am sure none of you want to get into any argument over priorities, whether some branch of the health profession gets more than somebody else, any more than we want to get into an argument with the NIH.

What we ought to do is have all of them stand on their own merits. Those priorities have to be decided usually because we appropriate a blanket amount. You get the impression that where there is only so much of the pie to cut that you people are kind of orphans.

Is that a good way to put it?

Dr. ORR. Yes, sir.

Senator MAGNUSON. That is not any fault of the committee because we appropriate the total amount. I think we want to take a look at that. We can put language in the report which is quite persuasive for them to see if we can't take a longer look or add enough money so that you won't take away from anybody else but you will take care of the problems that you have under the present authorization.

I know that a lot of people have been making plans on this new health manpower bill and I know ultimately we will have one. I think it will finally work out. I don't think there is too much trouble in conference. The House and Senate bills are not too far apart. They may get it worked out in the next few days or weeks.

I am afraid we are going to have to wait for a supplemental to implement that bill. We have supplemental requests coming up here every month, anyway.

This is just the major bill. A lot of these figures from the budget were sent up in January and a lot of things have happened since January. I think the whole climate in Congress has been different on the whole health program since January. So, we might be able to do much better.

We appreciate your being specific about certain items because we have to deal with the money.

Now, does anybody else have anything to add here?

Dr. BLIVEN. As you know, the House bill and the Senate bill both have included pharmacy and veterinary medicine, and so forth.

I think the point that we need to stress is that we came into some of these programs in fiscal year 1970. We now are looking forward to some stability of the program through this new legislation which will be extended for 3 or 5 years.

Senator MAGNUSON. It is hard to do any planning without that.

Dr. BLIVEN. What we are trying to do here is to set forth our needs.

Senator MAGNUSON. Then we have had some problems. We have given money in the health field over the years and they don't spend it; they hold it. I don't know what we can do about that. We can't put them in jail or cite them for nonperformance in court. But a lot of the funds for the health programs and some of them have been justified on the fact there would be some new approach, but they impound the funds.

So, we will take a good, long look at your matter.

I want to tell you that we deeply appreciate all the work you put into this statement and your charts and figures because we can use those when we mark up the bill.

Dr. ORR. Thank you very much.

Senator MAGNUSON. If there is anything else you have, we will put it in the record.

Say hello to everybody at home, Jim.

STATEMENT OF JOHN J. M'GONAGLE, JR.

Senator MAGNUSON. Mr. John J. McGonagle has submitted a statement regarding the OEO legal services program. OEO's authorization has expired but we will accept the statement for the record.

(The statement follows:)

Mr. Chairman and Members of the Subcommittee:

My name is John J. McGonagle, Jr. I am most honored to be permitted to make a statement to this Subcommittee on the budget for the Office of Economic Opportunity's Legal Services Program for the coming fiscal year.

I am associated with the law firm of Casey, Lane & Mittendorf in New York City, but I am speaking as a private individual who has served as an OEO attorney with VISTA. Because my association was with the Legal Services Program, I will direct my remarks only to that office's budget for Fiscal Year 1972.

As this Subcommittee is aware, the Legal Services Program has often come under fire. As one who has served in this program, I most respectfully point out that a substantial portion of the criticism directed at the Legal Services Program is misdirected. We hear public and private criticism of the type of cases which are undertaken on behalf of the poor by individual legal service attorneys on projects. The papers and our elected officials at all levels frequently point to cases which have been brought which they feel are not properly within the scope of the program. As a result, objections are continually raised to the continuation of the Legal Services Program, as it

appears much of its energy is dissipated in questionable directions. I respectfully submit that criticizing the clients of Legal Services for the uses which they have made or failed to make of the projects and attorneys is often not appropriate. It is my opinion that an analysis of many of these questioned actions (whether questioned in terms of the tacts used or the objects and persons attacked) would show that the misdirection is not a result of Legal Services Projects' clients desires. Rather, we often have the attorneys improperly leading or pushing their clients rather than being guided by the expressed needs and interests of their clients. When I was an attorney in the VISTA program, people in OEO and in the field had two labels for this phenomenon: attorneys either had a "plantation mentality" or were on their own "ego trip".

I would therefore respectfully request that this Subcommittee consider this fact when examining the activities of the Legal Services Program do not penalize the clients for occasional frolics and detours of their lawyers. The Legal Services Program, when it works properly and is responsive to the desires of people it is intended to assist, performs an absolute vital function in today's society. For the poor, who are properly its clients, and whom it should serve, it enables them to stand with equal dignity before our Courts, Administrative agencies, and all levels of government to be

heard and heard fully on all matters which affect their persons or their interests. The Legal Services Program enables poor Americans to partake of an American Credo: Equal Justice Under Law.

In looking at the current budget for the Legal Services Program, I note that it is virtually the same as last year. If anything, it should be increased. In any case, it should not be decreased at all. The amount we are spending at the moment is, in my view, the absolute minimum. The American Government can and should make a more adequate effort to provide funding for this vital program.

Although it is not currently before this Subcommittee, I would like to make a few observations concerning the proposed Legal Services Corporation. Basically, I am strongly in favor of any proposal, whether fiscal or organizational, which will serve to advance the desirable aims of the Legal Services Program. If the proposed Legal Services Corporation will enable this program to function more efficiently, and to be more responsive to the needs of its proper clients, then I think it is not only a commendable idea, but a virtual necessity. There have been criticisms raised that one or another proposal for a Legal Services Corporation will subject it to political pressure, etc. From the narrow perspective which I can bring this Committee, I would respectfully suggest that there is less fear from narrow partisanship than there is

to fear from the attitudes of a small minority of legal service projects and attorneys which I mentioned above. Whether we are focusing upon the size of the budget for the Legal Services Program or upon its organization and relationship to the Federal Government, we must always be certain that any changes which are made and all decisions which are reached about the activities and future of the Legal Services Program are guided by one consideration alone: Does it advance the ends of Legal Services Program and does it make it more responsive to the needs and desires of its clients.

STATEMENT OF MARTHA TABER, PRESIDENT, NATIONAL COUNCIL OF
OEO LOCALS, AFGE, AFL-CIO

Senator MAGNUSON. Also, on OEO, and for the record, is written testimony of the National Council of OEO Locals.
(The statement follows:)



american federation of government employees - union local 2677

July 16, 1971

Senator Warren G. Magnuson
Office of the U. S. Senate
127 Old Senate Office Building
Washington, D. C. 20510

Dear Senator Magnuson:

We are respectfully submitting to you for insertion into the OEO Appropriations Hearings our Testimony on one of the most important aspects of the OEO Bill, the continuation of the Emergency Food and Medical Services Program.

For further information please call Martha Tabor, 254-5070, or Tom Jennings, 254-5670.

Sincerely,

A handwritten signature in cursive script that reads 'Martha Tabor'.

Martha Tabor (M.T.)
President

TESTIMONY OF THE NATIONAL COUNCIL OF OEO LOCALS

American Federation of Government Employees

AFL-CIO

on

The Emergency Food and Medical Services Program

July 16, 1971

U. S. Senate

Committee on Appropriations

Subcommittee on Labor and Health,
Education and Welfare

The National Council of OEO Locals, AFGE, AFL-CIO, is the exclusive bargaining agent for all employees working for the Office of Economic Opportunity in the United States. We have recently become the first Union to win a nation-wide election, for national exclusive bargaining rights for any government agency. We are pleased, as the representatives of the OEO employees to have this opportunity to present testimony on the OEO Emergency Food and Medical Services Program. This testimony reflects the ~~views and~~ experience of those OEO employees who work with these programs. We feel these views are important since we work under and help implement the legislation which you gentlemen have passed. We are perhaps closest to and most aware of its functioning or its non-functioning.

First, we would like to deal with the zero dollars listed in the OEO budget for the Emergency Food and Medical Services Program coupled with its phase-out from OEO. The OEO official proposals for this program are designed to phase out this crucial program by the end of FY 1972 and early FY 1973. These termination plans are based on three assertions; all of which are misleading, unrealistic and, as we will prove, not applicable to the food programs as they do exist today. These assertions are:

1. The federal food programs have expanded so much that EFMS is no longer needed.
2. The Emergency is over.
3. The new Food Stamp Program will accomplish what EFMS is currently doing.

We can deal with these three points separately.

1. The expansion of the Federal Food programs is hardly adequate. Less than half of the eligible poor people are currently receiving food assistance benefits and over 30 million people (all of the poor) are in need of assistance. Currently the Food Stamp program serves about 10 million people and Donated Commodities another 4 million. This approximate total of 14 million compares with the total of approximately 28 million in need of assistance. As will be seen when we deal with the third point, the new Food Stamp regulations will tend to remove people from eligibility rather than make more people eligible.

2. We cannot consider that the Emergency is over when more than 50% of the eligible people are still not included in the Federal Food programs. Furthermore, the EFMS program should not be thought of as a disaster relief or soup-kitchen operation. Its purpose has always been, not to feed the hungry, but to see to it that they are fed through a variety of ways. They are still not being fed.

3. And finally, the assertion that the Food Stamp Program will accomplish what EFMS is currently doing. It is to a great extent on this new and supposedly expanded and improved program that the administration is basing its rationale for the proposed phase-out of the EFMS Program. The administration has expected that the new Food Stamp amendments will provide for large increases in that program and for much-needed reforms in terms of transportation, outreach, eligibility, and certification. The OEO FY 1972 Justification states the following (p. 81):

Rules on Food Stamps Admittedly to Cut Rolls

By Nick Kotz
Washington Post Staff Writer

The Agriculture Department has proposed new food stamp regulations that it admits would eliminate benefits for 350,000 recipients and reduce benefits for another 1,750,000.

The figures were disputed, however, by an attorney who specializes in food stamp law. He told a senate committee yesterday that as many as 4 million of 10½ million recipients would lose part or all their benefits.

Sen. George McGovern (D-S.D.), chairman of the Senate Select Committee on Nutrition, said the proposed regulations are "incredible and outrageous," and clearly subvert the will of Congress which was to increase participation and benefits in the program.

McGovern will introduce a Senate resolution asking a delay of the May 17 implementation date for the regulations.

The Senate resolution would not have the force of law, but is designed politically to force a reconsideration of the rules.

The regulations are intended to implement the 1970 Food Stamp Reform Act, hailed last January by President Nixon as expanding food benefits to meet problems of hunger and malnutrition in America. Chief features were free food stamps for the very poor and national eligibility standards designed to replace a patch work quilt of state standards, thereby making

many more persons eligible in some states.

However, Assistant Agriculture Secretary Richard Lyng acknowledged in a statement yesterday that the proposed regulations, while making many persons newly eligible, would also eliminate eligibility or reduce benefits for about 2.1 million persons. Lyng said the net result would be no change in total participation.

In effect, the regulations would make many more persons eligible in those states, mostly in the South, which have stringent eligibility requirements, but would cut or eliminate benefits to many in industrial northern and western states.

The restrictive features seem designed to bring the program in conformance with the administration's more conservative welfare reform bill.

A food stamp participant pays up to 30 per cent of his income for stamps, and receives stamps of greater value redeemable for food at groceries. For example, a family of four with \$200 monthly income would pay \$60 monthly to receive \$108 worth of stamps.

A family of four with less than \$360 monthly income would be eligible. With less than \$30 monthly family income, the stamps would be free.

Ronald F. Pollak, a respected constitutional lawyer and staff attorney for the Columbia University Center on

Social Welfare, Policy and Law, analyzed the proposed regulations for the Senate committee. Among his points:

- Most welfare families in New York, New Jersey and Connecticut would have benefits reduced to a few dollars, making participation of doubtful benefit. Arthur Schiff, director of the New York City food stamp program, said the regulations would increase the cost of stamps for 292,227 welfare families or cases and reduce the stamp bonus benefits for 239,016.

- Almost all California recipients of welfare aid for the elderly, blind and totally disabled would be entirely eliminated from participation in the food stamp program.

- About 820,000 poor persons would be eliminated from eligibility because they share housing with a non-family member. This provision of the law was aimed at banning "hippies" who live in communes, but Pollak said it would mostly hurt the indigent and their poor friends or neighbors who provide them housing.

- Hundreds of thousands of welfare recipients, in such diverse states as California, Colorado, Iowa, Louisiana, Massachusetts, Minnesota, Nevada, South Carolina and Texas will lose food stamp eligibility. Previously, all welfare recipients were eligible, but now welfare families are permitted only \$1,500 in maximum resources, exclusive of homes and autos. Hardest hit would be industrial workers now laid off who still have some money in their savings accounts.

An administrative nightmare will be created, contends Pollak, as welfare recipients have to qualify all over again for food stamp participation.

- Several million poor will be eliminated or have reduced benefits because of new definitions of what constitutes income in determining eligibility. No longer exempted as income as in HEW's welfare programs, are scholarships, educational loans, veterans' educational benefits and work-incentive payments in welfare retraining programs.

Pollak also criticized the law's new work requirement as especially harsh because it does not permit a person to refuse an offered job even when he can conclusively demonstrate that the work will gravely endanger his health and safety. If a person refuses a job at a salary of at least \$1.30 an hour, his entire family can be cut off benefits.

The new Food Stamp Act contains many reforms which promise to expand the nutrition effort still more. Among the most useful of these, especially in view of OEO participation, are: limited free stamps; partial purchase provision; national eligibility criteria; "check off" purchase; limited self-certification; 60 day vesting of certification; requirement that State plans provide for outreach, education, and assurances that all eligible families should participate; bonus value related to the food price index, and some cost sharing.

The effectiveness of these reforms depends upon how they are administered. This Administration intends to construe the reforms broadly and pursue them vigorously.

In the light of the above quotes from OEO's own 1972 Budget Justification, we would like to have the following article from the April 30th Washington Post submitted for the record and would like to cite it as contradictory evidence. The rules cited in this article hardly indicate "either that the Administration intends to "construe the reforms broadly" or to "pursue them vigorously."

For example, the new Food Stamp Program does make provision for outreach. The statute and regulations require state plans which will provide for "effective action ... to inform low-income households.... etc." This provision permits the state agencies to use the services provided by "other federally-funded agencies." This reference to "other federally-funded agencies" which will assist the states in out-reach can only refer to two other government programs - i.e. the Nutrition Aides Program of the Cooperative Extension Service of USDA and the EFMS Program. The first operates in only one-half of the counties of the nation and does not really provide outreach to the poor. Rather, this program concentrates on nutrition education. The other reference which can only be to EFMS is obviously ludicrous since the program, by the administration's proposals, is to be terminated. Finally, the outreach program is very likely to go unexecuted if left up to the states since they must pay 3/8ths of the cost. It is a matter of universal knowledge that states do not

have significant funds available. One of the activities of EFMS has been that of providing outreach, transportation and certification assistance for persons who participate in the Food Stamp Program or the Donated Commodities Program. If there is no effective outreach program, then there is no effective assistance, since this is the first step in providing the needed food. Such legislative reform is hardly being pursued "vigorously" in this area.

"What about the administration's intention to "construe the reforms broadly"? According to the testimony given at the recent hearings held by the Senate Select Committee on Nutrition, the new regulations would not introduce reform, but rather repression, removing from the roles some 820,000 poor people because they happen to share housing with a non-family members (a provision seemingly aimed at "Hippies," but hitting as well at many, many poor), numerous other poor people will be excluded because of the new income eligibility standards, the ^{regulations on} the/maximum allowable resources, and the definition of household. These restrictions only serve to guarantee that the poor, once again, will fall through the bureaucratic and legislative cracks with which they are all too familiar.

Serious consideration must be given to both continuing and expanding the EFMS Program until it is quite clear that other programs are sufficient and operable for the feeding of the poor. They are currently neither sufficient nor effectively operable. The EFMS Program is different from other government programs. It is more flexible and more comprehensive in the ways in which the monies can be used. Many of the agencies receiving EFMS grants are Community Action Agencies. The CAAs analyze the local hunger problems

and then take whatever action is necessary to deal with the problem. Activities range from assisting in the initiation of a school lunch program, to providing outreach, transportation and certification assistance, to assisting families in emergency situations, to arranging special feeding programs for specially vulnerable groups like the very young and the elderly. The record of this program in reaching the poor is remarkable. The best available estimates are that about 800,000 persons are served each month at a cost of about \$6.00 a person.

Therefore, because the logic for discontinuing the funding of EFMS is based on false assumptions:

1. The Federal food programs have not expanded to the point where EFMS is no longer necessary.
2. The emergency, as long~~er~~ as there are hungry poor people in the country, is not over.
3. The new Food Stamp Programs will not accomplish what EFMS is currently doing.

And finally because none of the other government programs have the operational flexibility of EFMS and can therefore not replace EFMS in the services provided given their current regulations, funding levels, and operational restrictions, because of all these points, we urge you to continue and to expand this program. Do not cut it off while all these rules and regulations are still being worked out and while the administration's welfare reform programs are still pending. For, to tie all other social programs to these proposed welfare programs, is to use a kind of legislative black-mail on the poor and the hungry of th's country, the group ironically enough most susceptible to and helpless before such blackmail.

STATEMENT OF MRS. PATRICIA McLEAN, DIRECTOR OF THE DIVISION OF DENTAL HYGIENE, COLUMBIA UNIVERSITY SCHOOL OF DENTAL AND ORAL SURGERY

CHILDREN'S DENTAL HEALTH

Senator MAGNUSON. Mrs. McLean. We will be glad to hear from you.

Mrs. McLEAN. This is our first appearance before this committee, our first appearance before any congressional committee, although we have submitted written statements.

My name is Patricia McLean, Mr. Chairman. I am director of the Division of Dental Hygiene at the School of Dental and Oral Surgery at Columbia University.

I am also a past president of the American Dental Hygienists' Association.

I appear before this committee on behalf of the members of the American Dental Hygienists Association, to comment on fiscal 1972 appropriations of interest to the oral health of the public and to our organization.

I think it appropriate, since we have never appeared before this committee, that you understand a little of our function and our educational preparation.

It is estimated that currently there are about 18,000 dental hygienists practicing in the United States today, an average of about 1 for every 6 or 7 practicing dentists.

As members of the dental health team, dental hygienists are primarily concerned with services that prevent oral disease. We are licensed in all States and Puerto Rico to provide preventable oral health services for the public. We are also the only licensed auxiliary on the dental team.

The services that we provide include but need not necessarily be limited to (1), the removal of stain and hard deposits, to assist in preventing periodontal disease; (2) application of caries preventive agents to reduce dental disease; (3) nutritional counseling to assist in oral health; (4) patient education for the prevention of oral disease; (5) retraining of undesirable oral musculature patterns to prevent possible malocclusions; (6) exposure and processing of radiographs to assist in preventing extensions of hard and soft tissue damage unseen to the naked eye; (7) observing, interviewing and reporting preliminary medical and dental history.

These are a few of the preventive services that are within the capabilities of this auxiliary and services that we believe could greatly reduce the dental decay and periodontal disease and all other oral problems presently faced by the Nation today.

Our minimum education requirements for licensure and practice are 2 years of academic college level study. We have 123 dental hygiene education programs with a total of enrolled students of over 6,000. Thirteen community colleges are developing programs that will enroll students in 1971. Six are planned to open in 1972, and three in 1973. Thirteen colleges, mainly university dental schools, offer bachelor's degrees in dental hygiene education. Six offer the master's degree.

We would like to comment, unless you have questions about our services and our educational background, on the appropriations for this year's health bill.

We would particularly like to comment on the Children's Dental Health Act of 1971.

Senator MAGNUSON. Now, Mrs. McLean, here again we are talking about something—it is my bill, so I know something about it; but it is something that is just in committee. I expect they are going to pass it out of the Senate committee next week. We testified last week. But by the time it gets to the floor and gets to the House and gets to the conference, why, this appropriation bill will have been enacted for some time.

Now, we are going to have to have some new money if my bill passes. It is the children's dental bill. It has wide support. Senator Kennedy thought he could get it out of committee next week.

So, when we get our supplemental on that next fall we will start to work on that because that does some of the things you are talking about. But you have an interest in what is there now and what is in this budget.

Mrs. McLEAN. There is no indication that the basic improvement program will be funded in fiscal 1972, as I understand it. Though the program has generally been underfunded since its inception, it nevertheless has been a source of ongoing support for allied health curriculum. Funds available have been used to support faculty, staff, purchase equipment, and provide minor alteration and renovation of educational facilities.

Unfortunately, funding has not kept pace with the annual rate of growth of the allied health curriculum. In fiscal 1968 482 allied health curriculums shared the stipend of \$9,750,000 in the basic improvement grants. In fiscal 1970, 717 allied health curriculums shared an even lesser amount, about \$9,701,000.

Senator MAGNUSON. This year's budget only suggests \$10 million.

Mrs. McLEAN. Yes, sir.

In fiscal 1971, 28 baccalaureate dental hygiene programs with a total enrollment of 1,158 students received \$394,682.

Sixty-three associate level curriculums with a total enrollment of 1,820 students received \$682,450, a drop of about \$100,000 from 1970.

Our association believes that this record falls far short of an appropriate level of Federal participation in allied health programs. We urge this committee to recommend at a far more adequate level funding of the basic improvement grant section of the Health Training Improvement Act in fiscal 1972. Not to do so, in our estimation, it seems, would curtail needed manpower for the dental profession.

In conclusion, Mr. Chairman, throughout the State and within the leadership of the American Dental Hygienists Association it is apparent that dental hygienists realize that they, too, have some responsibility for the delivery of dental care.

Dental hygienists are assuming a new active role in addressing the problems that have existed regarding dental hygiene manpower supply, distribution and utilization. We are anxious to do all that we can to help improve the oral health of the people.

In this regard, we believe dental hygiene can greatly aid dentistry in reducing the incidence of oral disease from which at least 95 percent of the population suffers at the present time.

A significant portion of this percentage consists of needy and low-income people and those living in rural isolated areas.

By virtue of the traditional role of the dental hygienists in the area of preventive oral health care, consideration should be given to extending this bill as a means to providing more preventive oral health care to these groups of people. Since only one-half of the children in this Nation under 15 years of age receive any kind of dental care, it would seem that we could do a great deal more if funds were placed on prevention at a very early level such as you have suggested.

One of these affecting the oral cavity is dental caries. It is estimated that about \$2 billion is spent annually for repairs of the damage resulting from tooth decay. We have, because of research and funding for research, mechanisms now for preventing or at least reducing by 60 percent the number of dental caries found in the oral cavity. We are not realizing this to any great extent.

We have fluoride which is in the bill and should be considered.

It is further estimated that the complete repair of damage caused by dental caries nationwide would cost about \$8 billion more than is now spent.

Periodontal disease is one major cause of loss of teeth in adulthood. The result of task studies appearing in the American Dental Association Dental Health Program for Children indicated that gingivitis or beginning of periodontal disease is found in a major portion of the child population.

From the standpoint of the economy, greater focus on preventive care and employment of known preventive public health measure are logical and sound, especially for those groups who do not have ready access to care or cannot afford it.

Toward this end, the function of the hygienist would prove most useful as most preventive procedures are already within the scope of dental hygiene practice.

Mr. Chairman, we believe that we can contribute to dentistry's efforts to meet the ever-increasing demand for dental care. We need the support and the help of this committee and of Congress in order to provide an increased number of competent, well-qualified dental hygienists who are prepared to function within relatively new and unexplored patterns of rural health care delivery as well as to meet traditional needs.

PREPARED STATEMENT

We will be pleased to answer any questions that the committee might have at this time, Mr. Chairman.

(The statement follows:)

My name is Mrs. Patricia McLean. I am the director of the Division of Dental Hygiene at the Columbia University School of Dental and Oral Surgery and I am a past president of the American Dental Hygienists' Association. I appear before this committee today in behalf of the members of that organization.

CHILDREN'S DENTAL HEALTH

At the start, the American Dental Hygienists' Association wishes to acknowledge the attention directed to dental health by the chairman of this subcommittee. The "Children's Dental Health Act of 1971," Senate bill 1874, has special significance to us in that the early dental hygiene practitioners functioned primarily to improve the dental health of children by providing preventive and educational services in the public schools of Bridgeport, Connecticut. Today, though most dental hygienists in the country are employed in dental offices, several states are endeavoring to maintain the school dental health program, utilizing the skills and services of dental hygienists.

The American Dental Hygienists' Association vigorously endorses this specific legislative authority for dental health and commends the chairman for recognizing the need for such. We earnestly hope this initiative will win the support of the Congress, appropriate federal agencies, and the public at large because it addresses the major problems associated with dental disease in this country, problems which have been identified repeatedly by the American Dental Association and the American Association of Dental Schools before congressional committees.

We are aware of this committee's previous support for the implementation of pilot dental care projects for needy children as recommended by the American Dental Association and are certain the efforts of the committee greatly enhanced the reality of the few projects that currently are underway. We believe, however,

that the existence of an independent statute containing appropriate funding levels on a five-year graduated basis, as set forth in S. 1874, will give far greater impetus to efforts to provide comprehensive dental health care and services to pre-school and school age children from low-income families or to those children who are unable to obtain such care. We are especially pleased to note the inclusion in S. 1874 of preventive services, including dental health education, and treatment as part of a comprehensive program to elevate the dental health status of these children.

Other features of S. 1874 also are highly desirable, such as the Federal grant program to assist in fluoridation of community or public elementary or secondary school water supplies and a specific grant authority to assist institutions in carrying out programs to educate and train dental auxiliaries. In this regard, the availability of a substantially broader level of Federal support would greatly aid in narrowing the gap between the supply and demand for competent, well-qualified dental auxiliaries in terms of both existing and projected shortages.

Along these lines, we are equally interested in aspects of existing and proposed federal legislation that would support expanded utilization of dental auxiliaries. Recognizing the value of effective dental auxiliary utilization to the practicing dentist, the American Dental Hygienists' Association has encouraged curriculum change in schools of dental education to include a program designed to educate dental students in effective utilization of dental hygienists. We, therefore, strongly support the development of dental team management programs which include experience in utilizing dental hygienists who perform both traditional and expanded duties. In our view, the availability of project funds at the levels indicated in S. 1874 would best achieve the objectives of more efficient, effective dental auxiliary utilization in order to increase the delivery of dental care and services to a greater segment of the population than previously has had access to such care.

As this is the first time our Association has appeared before this committee, it is appropriate to provide a brief description of the function and educational preparation of dental hygienists.

BASIC FUNCTION OF DENTAL HYGIENISTS

It is estimated that currently there are about 18,000 dental hygienists in practice in the United States, an average of about one for every six or seven practicing dentists.

As members of the dental health team, dental hygienists are primarily dental health educators for individuals and groups. The role of the dental hygienist is in the area of prevention of oral disease.

Dental hygienists are licensed in all states and Puerto Rico to perform specific intra-oral procedures which are directed toward preventing disease. Clinical dental hygiene procedures include: removing deposits and stains from teeth; performing clinical examination of teeth and surrounding tissues for diagnosis by the dentist; applying prescribed medicaments to teeth for prevention of dental decay; and preparing clinical and laboratory diagnostic tests for interpretation by the dentist. Other clinical services include: taking and recording medical and dental histories; providing oral health instruction to patients; exposing and processing dental x-ray films; and maintaining patient records.

Currently the dental practice acts in at least 20 states have been revised to provide for the delegation of additional responsibilities to dental auxiliaries.

EDUCATIONAL PREPARATION OF DENTAL HYGIENISTS

Minimum education required for dental hygiene licensure and practice is completion of two academic years of college study in an accredited dental hygiene program. The associate of arts curriculum prepares the dental hygienist for practice in dental offices and other clinical settings. Basic dental hygiene education is also offered in bachelor's degree programs. Some four-year colleges and universities offer bachelor's curriculums for graduates of the associate of arts programs, and master's degree curriculums for dental hygienists who have earned a bachelor's degree. The baccalaureate or higher degree programs enable dental hygiene to develop appropriate research programs and better serve the public in education and dental public health.

Currently there are 123 total operational dental hygiene education programs with a total enrollment exceeding 6,000 students. Thirteen developing programs plan to enroll first year students in 1971, six are planned to begin in 1972, and three in 1973. Thirty dental hygiene education programs offer bachelor degrees and six have master degree programs available. The remaining programs offer associate degrees or certificates for successful completion of the program.

The American Dental Hygienists' Association recognizes the continuing demand for clinical dental hygiene practitioners and is encouraged by the annual growth in numbers of associate of arts

dental hygiene education programs and graduates.

The Association also recognizes the growing need for dental hygienists who are qualified for practice in public health programs, educational institutions, hospitals, or dental specialty offices. A great need exists for faculty and administrators in dental hygiene education. For these reasons, the Association has encouraged the development of baccalaureate and higher degree programs which provide adequate preparation in these specific areas of dental hygiene.

FUNDING FOR ALLIED HEALTH PROFESSIONS EDUCATION

Dental hygiene education has received support through the basic improvement and traineeships for advanced training programs of the allied health professions personnel training authority since its inception. Having participated in hearings last year, on a joint basis with the American Dental Association, the American Association of Dental Schools and the American Dental Assistants' Association, on proposals to extend and improve allied health legislation, our Association has great interest in adequate funding of programs authorized by the Health Training Improvement Act of 1970.

This committee is well aware of the fact that provision of highly skilled health care personnel continues to be one of the top national health priorities. Within the broad scope of health manpower needs, national spokesmen recognize the value and practicality of increasing the supply and utilization of allied health professions personnel. In addition to identifying needs for physicians and dentists, the report of the Carnegie Commission on "Higher Education and the Nation's Health: Policies for Medical and Dental Education" states:

primary emphasis should be placed on increasing the supply of allied health personnel...These personnel can be trained more quickly and less expensively than doctors and dentists, and their availability will make possible the better use of the time and skill of doctors and dentists.

Testifying before the Senate Labor and Public Welfare Committee in May 1970, Assistant Secretary of HEW, Dr. Roger Egeberg, stated:

Efforts to increase medical, dental and nursing manpower have received major attention for a number of years. Relatively little attention, however, has been given until recently to the essential contributions of allied health personnel to the provision of modern health services.

Their effectiveness is already clearly demonstrated in many settings where health care is provided. Improvement in the utilization of health manpower can be effected through greater use of capable supportive personnel in the delivery of vitally needed health services. This is now done to only a very limited extent in the American health care system.

More general use of the allied health manpower in this country requires effective utilization of our present training capacities and experimentation and development of new and improved ways of training and increasing the effective use of allied health personnel.

President Nixon stated in his Health Message to the Congress this year:

One of the most promising ways to expand the supply of medical care and to reduce the costs is through a greater use of allied health personnel, especially those who work as physicians' and dentists' assistants, nurse pediatric practitioners and nurse midwives.

Though increases for the allied health programs are indicated in the fiscal 1972 budget estimate, it would seem that such high levels of interest in allied health manpower development and utilization would be reflected by a more appropriate level of federal participation. The budget request hardly makes such a reflection: only about 1/20 of the health manpower budget authority is earmarked for this activity.

The American Dental Hygienists' Association believes that provisions contained in the Health Training Improvement Act of 1970, the principal federal program for the education of allied health personnel, should be funded at more realistic levels. The appropriation should at least approach more nearly those levels authorized by the law and should include funding for each section of the law.

As it is, the fiscal 1972 budget request indicates that the special improvement grants, the special project grants and contracts, and the professional traineeship programs will be funded. No support is indicated for construction, basic improvement or for the new "financial assistance for students" section of the law, consisting of scholarships, work-study, and loan programs.

Student Assistance: The financial aid program for allied health students was designed to provide assistance to individuals of exceptional financial need who require such assistance in order to pursue a course of study. Existing federal student financial aid mechanisms fall short of meeting the needs of allied health professions students. Given the specific assistance programs for students of medicine, dentistry, and related health professions, and for students of nursing, if we are to encourage qualified young people with exceptional financial need to undertake education for the allied health professions, then we must construct a student aid mechanism that will promote the entry of these individuals into educational programs at the basic professional preparation level and importantly, into advanced allied health education and training programs as well.

Institutional Support: The fiscal 1972 budget estimate indicates that "special improvement grants will be made to allied health training centers offering the greatest comparative potential for expansion of allied health manpower output through enrollment increases in established curriculums, planning and establishing new programs, shortening curriculums, and developing coordinated programs to conserve faculty and facilities. The 1972 program represents a shift from the formula grant to the project grant mechanism and will allow concentration of resources in high priority areas while providing continuity of support to schools previously receiving entitlement funds."

There is no apparent indication that the basic improvement grant program will be funded. Though the program generally has been under-funded since its inception, it nevertheless has been a source of ongoing support for allied health curriculums. Funds available have been utilized to support teaching faculty, purchase equipment, and for salaries for supporting staff and alteration and renovation of teaching space.

Unfortunately, the funds available have not kept pace with the annual rate of growth of allied health curriculums. In fiscal year 1968, 482 allied health curriculums shared \$9,750,000 in basic improvement grant support; of that number 360 were baccalaureate or higher degree curriculums and 122 were associate of arts or equivalent degree curriculums. 19 baccalaureate level dental hygiene curriculums received 4.8 percent of the total funds awarded and 34 associate level curriculums received about 7.0 percent.

By comparison, in fiscal year 1970, a total of 717 allied health curriculums shared even a lesser amount of available federal funds---about \$9,701,000. Out of 469 baccalaureate curriculums,

22 dental hygiene programs received nearly \$348,000, about 2 percent of the total funds awarded. And out of 248 associate of arts level curriculums, 59 dental hygiene programs received \$790,880, about 3 percent of available funds, reflecting a sharp drop from previous percentage levels.

In fiscal 1970, 29 dental assistant programs received support in the amount of \$298,971 and 16 dental laboratory technician programs received \$141,379. The combined total basic improvement grant funds awarded to all dental auxiliary education programs was slightly over \$1.5 million.

Continuing growth in enrollment and curriculums was apparent in the fiscal 1971 program, with 805 allied health curriculums sharing the same amount of available federal support as in the previous year---\$9,701,000. Despite growth in the numbers of curriculums, the combined total amount of funds awarded to dental auxiliary programs was even less than the year before. It is unclear to us why growth must be so penalized.

Our Association believes that this record falls far short of an appropriate level of Federal participation in the allied health program. We urge this committee to recommend funding of the basic improvement grant section of the Health Training Improvement Act in fiscal 1972 and at a far more adequate level in order to accommodate the rapid growth in the numbers of eligible allied health curriculums and also to provide a dependable and regular source of financial assistance for allied health education. The amount authorized by the law is \$15 million. We believe this amount should be appropriated.

The other aspect of institutional support for allied health is the special improvement grant section of the law. Special improvement grants, on a competitive basis, to training centers to assist in projects for the provision, maintenance, or improvement of the specialized functions which they serve, in addition to basic improvement support, should enable institutions to develop the resources needed in order to undertake innovative programs in high priority areas as described in the special project section of the law. Regarding the latter, we are aware of the increasing desire of dental hygiene education programs to participate in the special project aspect of the law and are pleased that at least two applications have been approved and will be funded.

FUNDING FOR HEALTH MANPOWER

The American Dental Association and the American Association of Dental Schools have testified recently before congressional committees on proposals to extend the Health Manpower Act of 1968. These two organizations have identified the existing fiscal crisis with which so many of the nation's dental schools are faced. They have suggested how current and anticipated difficulties could be alleviated by an increased level of federal assistance in four broad categories: basic institutional grants; special project funds; construction grants; and student support. Although basic education of dental hygienists is not assisted directly by the health professions educational assistance programs, the experience in dental education under these programs certainly is related and is of great interest to us.

Out of 123 dental hygiene education programs currently in operation, 32 of these are situated in the dental school setting. Two more programs are planned to begin operations in dental school settings in the fall of 1971. Of specific interest at this time is that component of dental education designed to teach students how to utilize dental auxiliaries in the delivery of dental health care and services, as well as growing interest within several dental institutions to undertake experimental programs designed to determine the feasibility of expanding the functions of dental hygienists. Frequently, if not consistently, financial limitations and lack of adequate facility and faculty resources preclude the development of these innovative programs.

The proposals before the Congress in support of health professions education provide special project grants for the development of training programs for new levels or types of health professions personnel and for teaching students the use of the team approach to the delivery of health services.

In view of the increasing attention being given by members of the dental profession to the need to revise and increase the role of dental hygienists and dental assistants in the delivery of dental care, our Association urges favorable consideration of all aspects of the federally supported program which would assist dental schools in attaining the needed resources for development of these special programs.

CONCLUSION

Mr. Chairman, throughout the states and within the leadership of the American Dental Hygienists' Association, it is apparent that dental hygienists realize that they, too, have some responsibility for the delivery of dental care. Dental hygienists are assuming a new active role in addressing the problems that have existed regarding dental hygiene manpower supply, distribution and utilization.

In this regard, we believe dental hygiene can greatly aid dentistry in reducing the incidence of oral disease which at least 95 percent of the population suffers at the present time. A significant portion of this percentage consists of needy and low-income people, and those living in rural and isolated areas. By virtue of the traditional role of the dental hygienist in the area of preventive dental care and dental health education, consideration could be given to extending this role as a means to provide more preventive dental care to these groups of people.

One disease affecting the oral cavity is dental caries. It is estimated that about \$2 billion is spent annually for repairs of damage resulting from tooth decay. It is further estimated that complete repair of damage caused by dental caries nationwide would cost about \$8 billion more than is now spent.

Periodontal disease is a major cause of loss of teeth in adulthood. The result of task studies appearing in the American Dental Association Dental Health Program For Children indicated that "gingivitis occurs in a major portion of the child population," a condition which can lead to progressive periodontal disease and subsequent loss of teeth.

From the standpoint of economy, greater focus on preventive care and employment of known preventive public health measures are logical and sound, especially for those groups who do not have ready access to care or who cannot afford it. Toward this end, the function of the dental hygienist should prove most useful as most preventive procedures already are within the scope of dental hygiene practice.

Mr. Chairman, we believe that we can contribute to dentistry's efforts to meet the ever increasing demands for dental care.

We need the support and help of this committee and of the Congress in order to provide an increased number of competent, well-qualified dental hygienists who are prepared to function within relatively new and unexplored patterns of oral health care delivery as well as to meet traditional needs.

Mr. Chairman, this concludes our statement of views for consideration by the committee. We will be pleased to answer any questions the members of the committee might have at this time.

VOCATIONAL EDUCATION

Senator MAGNUSON. We thank you for your statement.

Of course, the chairman heartily agrees with you. You cannot only contribute but you have to contribute or we are never going to catch up with this.

Now, I was interested in the part of your statement that some of the community colleges or junior colleges are thinking about courses in this field. Now, we have a large amount for vocational education in the education budget. We have increased that considerably over the years. We have always been above the budget. We always have an argument about it downtown regardless of who has been President.

This could be one of the things, I think we ought to find out whether or not in a community college under health manpower you could do some work in traineeships in a community college, because you are apt to get more of a pool of people in those places than in a university.

Mrs. McLEAN. On the other hand, we need administrators and teachers.

Senator MAGNUSON. You need that, too.

Mrs. McLEAN. Working in the colleges.

Senator MAGNUSON. You need that, too.

I think a great deal of emphasis should be placed on what we call community colleges in my State. That kind of program fits right in with what we are talking about in the whole field of vocational education.

You are quite right, the figures I gave the Senate Committee last Monday, I think it was, were just startling. You said 95 percent. I got 98. I don't know whether I am right or wrong.

Mrs. McLEAN. Well, it is at least 95

Senator MAGNUSON. The few youngsters—of course, this will vary as to areas and in low-income groups it would be higher than the national average but the number of youngsters that never see a dentist is just amazing. The little things that a dental assistant could do could prevent him from having a lot of trouble.

Like me this morning. I had to go to the dentist. I just had them cleaned but it took a long time, and it didn't require a dentist.

Mrs. McLEAN. That is within the scope of the dental hygienists.

Senator MAGNUSON. These are things that we have to consider as we're just as short of dentists as we are of doctors. We are not going to catch up; there just aren't the facilities available to catch up. We may have goals, adding so many more in a dental school, but they can't take them all they don't have the facilities and they are in trouble.

So, you are just going to have to shift this work, some of the work that can be done well and efficiently by what you are talking about. There is no reason why that dentist should have spent an hour with me this morning cleaning my teeth. He had more important things to do, I am sure. There is no reason for that. There are many other things that you know so well that can be done. But you have to have some training. You just can't put a girl, who starts out with no training, on dental work. It takes some time to get up to that point but if they get trained they can come in and do these things.

I think in the allied health, \$10 million is so meager that you can't believe it.

Now, on traineeships, there was \$3.5 last year. The budget only suggests the same now. There should be more of that.

Educational grants and contracts and direct operations, they did suggest almost tripling that, from \$5.89 million to \$16.9 million, but that may involve other changes they proposed.

So there is some hope we are getting down there.

Thank you very much.

Mrs. McLEAN. Thank you, Mr. Chairman.

STATEMENT OF PETER J. SALMON, LL.D., ADMINISTRATIVE VICE PRESIDENT, THE INDUSTRIAL HOME FOR THE BLIND; AND DIRECTOR, NATIONAL CENTER FOR DEAF-BLIND YOUTHS AND ADULTS, NEW YORK

REHABILITATION SERVICE : DEAF-BLIND YOUTHS AND ADULTS

Senator MAGNUSON. Next on the list is Mr. Peter Salmon, National Center for Deaf-Blind Youths and Adults of New York.

Mr. SALMON. That is right.

Senator MAGNUSON. This is rehabilitation service; is that right?

Mr. SALMON. Yes; a special center.

Good morning, Mr. Chairman. I am identified on the front page.

Senator MAGNUSON. We will put the whole statement in the record.

Mr. SALMON. I would like to file this for the record.

I will just cover a few points because actually we are talking here of one single line item in the budget but a very important one for deaf-blind youths and adults.

For your remembrance rather than for information, we have a program under the Office of Education for deaf-blind children. You have already funded that. I work very closely with them. So, we are all very grateful to you and to the Congress.

I might say that the fact of having these two federally funded—

Senator MAGNUSON. We have funded Gallaudet and the one in Rochester—the new one that they are building.

Mr. SALMON. Yes, sir; and then the Office of Education's Bureau of Handicapped Children.

Senator MAGNUSON. Yes; they have some funds.

Mr. SALMON. They have this program for deaf-blind children for training and education.

This program in the Office of Education and the National Center which I am representing this morning—

Senator MAGNUSON. Well, let us get down to brass tacks.

You got \$3 million in 1971. The budget only recommended six hundred or a minus two five.

Mr. SALMON. Yes; the budget recommended a program of \$600,000 and then your current budget, the recommendation still is for \$600,000.

I would like to point out, Mr. Chairman, that the money you appropriate to us now will become available to us on January 24, 1972, for the ensuing year.

When we first projected this program, we estimated that by that time we would need \$750,000. We are up to the point now where we have had 2 years' experience and we are starting the third year and a closer estimate now would be that we need \$700,000 in order to maintain the momentum that we have gained in recruiting staff, developing

training staff, because in this field there was practically no staff whatever to train in the field of deaf-blindness.

So, we are hoping that you will give consideration to our request, the \$700,000.

Senator MAGNUSON. Instead of \$600,000.

Mr. SALMON. Instead of \$600,000.

Senator MAGNUSON. You got the \$2.5 million in the committee.

Mr. SALMON. We got the \$2.5 million.

Senator MAGNUSON. Committed.

Mr. SALMON. Yes; it is committed.

Senator MAGNUSON. Which comes out of the 1971 budget.

Mr. SALMON. That is right.

Along that line, I would like to point out that on February 22 of this year we received a commitment of this money from Commissioner Twinane and we have already received the funds. At the same time, we received a grant of 25 acres of land at Sands Point, Long Island.

Senator MAGNUSON. Surplus Navy.

Mr. SALMON. Surplus Navy property; yes. And a beautiful situation. It will be an area that will comprise a park of over 200 acres. We will have the only facility in there which will permit deaf-blind people to have not only their own 25 acres but to have the advantage of being out in the air and having recreation, sports and all kinds of things that we can develop for them.

We are at the point now, in view of the fact that we got this acreage, where we have had applications from some 27 architects. We have reduced it down to eight with the cooperation of the regional engineer, region II in New York City, and next week we are beginning to interview the four that we have selected.

Our next step will be to appoint the architect and then to develop the final plans. We have some preliminary plans.

Senator MAGNUSON. On the construction?

Mr. SALMON. Yes; on the construction.

We have some preliminary plans developed by one of our own trustees who has just retired. He has given us a great deal of help. However, the job now will be under the architect of record to develop final plans and then develop the final costs because costs when we projected them, we had no land, plans, or anything else.

But the administration asked for some kind of figure that could be projected. That is where the \$2,500,000 comes in. We are not mentioning any figure now. What we will do will be to get the firm bids, develop the costs, and then present it to the administration and hopefully the Secretary will make a recommendation to you and the appropriate committees. That is where we are.

Senator MAGNUSON. Do you have any people up there now?

Mr. SALMON. Yes.

Senator MAGNUSON. How many?

Mr. SALMON. We have a temporary headquarters at Hyde Park, Long Island.

Senator MAGNUSON. Of the deaf-blind people.

Mr. SALMON. We have 16 in training.

During the past year, since we have opened, we have helped about 150, 160 altogether. In the new facility we will be able to take 50 deaf-blind persons at any one time.

Senator MAGNUSON. The idea is for rehabilitation in a vocational field, is that right?

Mr. SALMON. Yes; also in the field of just daily living for those who can't go in. We will have research.

Senator MAGNUSON. Adjustment?

Mr. SALMON. Adjustment. We will have mobility, to move about by themselves.

Senator MAGNUSON. I understand.

Mr. SALMON. I know you do. I am talking to an expert.

Senator MAGNUSON. What are the requirements to get in the place?

Mr. SALMON. This has to do with the Office of Education program. The word "youth" was put in there and whoever did it was a great service when the legislation was enacted because this means we can for the first time have a continuity of service. When the child is in an educational or training situation he gets up to 14, 16, 18 years of age, we will know a couple of years beforehand and we are working closely with the schools and training facilities—

Senator MAGNUSON. I guess you didn't get my question.

Who sends you the people? Do the people apply to come in or are they sent to you by a state rehabilitation office or the Office of Education?

Mr. SALMON. They come from various sections. The main source will be the vocational rehabilitation in the States.

While in the past this has been a very substantial cost to the States, we are announcing in another month that we are reducing the cost to 25 percent of the cost because we can take care of the need in this temporary center. When we go into the national center, the permanent facility, it will be a free service, and this will be a very substantial means toward getting deaf-blind people to come in. There are many other places we get them besides the States.

Senator MAGNUSON. Who picks them in the State?

Mr. SALMON. We have two regional offices now. We are going to have four. But they contact us and then we—

Senator MAGNUSON. To see how many you can handle?

Mr. SALMON. Yes.

Senator MAGNUSON. The reason I ask these questions is because obviously there are more outside than can get in.

Mr. SALMON. Yes.

Senator MAGNUSON. Who is favored in getting in?

Mr. SALMON. In our case, the ones who are favored—some people disagree with this—the ones that need us the most. We have deaf-blind people who have been in mental hospitals anywhere from two to 30 years. As long as I am around, and I hope the administration will continue to support us, they are the ones who will get the first preference.

Senator MAGNUSON. Who screens them?

Mr. SALMON. We do. We have a staff that screens them. We bring them in for evaluation. We work with them in the setting where we find them. We work with the family. We work with the agency that has the authority.

Senator MAGNUSON. How big a staff do you have?

Mr. SALMON. We have a staff of about 30 altogether.

Senator MAGNUSON. Thirty?

Mr. SALMON. Yes. We will have a staff of 50.

Senator MAGNUSON. How many are you going to take in?

Mr. SALMON. We will take in that many at one time, 50 in the center. Then we will be working with probably 50. As the years go by, we will be working with a larger number in the field.

Senator MAGNUSON. Outside?

Mr. SALMON. Yes.

Senator MAGNUSON. Because you would not have a staff of 50 for 50 people.

Mr. SALMON. We would have a staff of 50 for 50 people. It is a one-to-one necessity.

When the center is operating, we will be working in the communities and hopefully we will be helping agencies, other agencies, to give service to deaf-blind persons. We will give them professional and moral support and encouragement and everything else.

Senator MAGNUSON. Then there are some research contracts that have been let for a different type, community devices or things of that kind?

Mr. SALMON. That is right.

Senator MAGNUSON. One last question.

How are you any different than the facility in Rochester?

Mr. SALMON. The one in Rochester deals with the deaf.

Senator MAGNUSON. They told me they had some blind. Temporarily, I guess.

Mr. SALMON. It must have been temporary.

Senator MAGNUSON. But they are mainly deaf?

Mr. SALMON. Mainly deaf. We are cooperating now——

Senator MAGNUSON. And you cooperate with Gallaudet.

Mr. SALMON. Yes; indeed.

Senator MAGNUSON. What is your cooperation with the American Printing House?

Mr. SALMON. It is as close as it can possibly be.

Senator MAGNUSON. They provide materials?

Mr. SALMON. Yes.

Senator MAGNUSON. We have their appropriation too.

Mr. SALMON. We cooperate closely.

Senator MAGNUSON. Everybody works closely together.

Mr. SALMON. Yes; indeed.

Senator MAGNUSON. Thank you very much.

We will put your statement in the record in full.

Mr. SALMON. Thank you, Mr. Chairman. I appreciate it very much. (The prepared statement follows:)

Honorable Chairman and Members of the Committee:

I am Peter J. Salmon, Director of the National Center for Deaf-Blind Youths and Adults.

The National Center for Deaf-Blind Youths and Adults, a Federally funded program which you helped so materially to bring into being, is operating from temporary headquarters in New Hyde Park, Long Island, until such time as the permanent Center is constructed. Nevertheless, we have been able to carry forward the program of services to deaf-blind persons, and we have just recently submitted the Annual Report to the Secretary of H.E.W., which is required by the Congress. I have some copies of this report with me today. I think if you have an opportunity to review it you will be heartened and inspired.

This interim period prior to the construction of the permanent Center is proving extremely valuable, as we have been able to recruit and to train staff members, and to test various areas of programming. The experience also has made it possible for us to develop the preliminary architectural plans for the construction of the permanent Center. Your Committee appropriated for fiscal year 1971, \$600,000. to carry forward the program of services at the temporary Center, and \$2.5 million for the construction of a permanent Center. On February 22, 1971, Mr. John D. Twiname, Administrator of Social and Rehabilitation Service, presented a letter of commitment for the \$2.5 million which was made available in the 1971 budget, and we have just been advised that this construction money is now available to us. At the same time, Mrs. Bernice L. Bernstein, Director of H.E.W. Region II, conveyed to The Industrial

Home for the Blind, which operates the National Center, 25 acres, a portion of the 161 acres formerly used by the Naval Training Device Center at Sands Point, Long Island. This property is to be used exclusively for the construction of the permanent Center and the carrying forward of the program of service for deaf-blind youths and adults.

I would like to publicly acknowledge appreciation to the Office of Surplus Property Utilization of H.E.W. and to Region II for the unusual cooperation and interest that all concerned took in relation to the steps leading up to the conveying of this property at Sands Point for the National Center. The property is located in one of the finest areas on the north shore overlooking Long Island Sound, next to the former Guggenheim estate.

Nassau County has obtained a large tract of land, adjacent to that of the National Center, which is to be used for a park to be operated by the County. This fact adds greatly to the setting for the Center, and will provide additional opportunities for deaf-blind persons to have the use of the park. Just recently, Nassau County has inherited 80 acres of land from the Guggenheim Estate, and that will also be a park, which adds to the uniqueness of this piece of property. We feel that this additional park area will provide a wonderful opportunity for deaf-blind persons to be in an area where they can move about freely and, probably for the first time in their lives, be able to enjoy this kind of a situation. It is one of those very fortunate happenings which only rarely occurs at the exact time

when needed, and we are deeply grateful, and in fact, feel it augurs well for the future and the development of services to deaf-blind persons.

Up until the time we received the commitment for the construction and the conveyance of the property, we had been working on preliminary plans for the construction of the Center. Here again, we were fortunate that we had the expert assistance of a recently retired architect, Mr. Adolph Goldberg, a member of the Board of Trustees of The Industrial Home for the Blind, who donated his services. He made it possible for us to review and go over and over these plans. We estimated that he actually contributed about \$40,000. He didn't even want his name mentioned, but we feel that his outstanding contribution should be acknowledged.

This has been a very great help to us because, in starting a facility of this kind, we naturally had nothing to go by, so that we had to go back and forth and check and observe other facilities. We feel that this is an unusual situation which will help toward the ultimate construction of the Center.

Since February 22, 1971, we have been concentrating on the selection of a supervising architect. In this regard, we have had the complete cooperation of the Regional Engineer of H.E.W. Region II, New York. He has received applications from 27 architects and has screened these applications for us, and has reduced the number to eight. At the moment, the President of IHB has appointed a Committee to review these eight applications, and to make the selection of the architect. The Regional Engineer has agreed to sit in with the Committee, and we hope to make

the selection of the architect within the next 60 days. As soon as possible thereafter, we will get firm estimates for the construction of the National Center and review the costs of these estimates with the Administration, and hopefully, the Secretary of H.E.W. will make his recommendations for the cost of the program and for the cost of the Center in his 1973 budget request. We want the Center to be a model because it will help to serve greatly not only in the United States for the program we will be conducting, but throughout the world, where a dire need exists for services to deaf-blind persons. This program does not extend abroad, but we will invite people to come for observation. This will be an inspiration to them. We don't want any fancy buildings. We just want comfortable, decent, clean, nice buildings which will be functional and which will conform to the character of the surrounding neighborhood.

Incidentally, Mr. Chairman, we naturally hope and trust that your Committee will see fit to appropriate the \$600,000. for the program of the National Center in the 1972 budget, which you have before you, which by the way, is less than a minimum need. When the legislation was being projected about five years ago, on request of the Administration, we made a forecast of our needs. For the program we estimated that \$600,000. would suffice for the first three years, but that by the fourth year we would need instead of \$600,000. - \$750,000., in the belief that we would have the program developed sufficiently to require this amount. (We are now talking about the fourth year as far as the National Center is concerned. It might be well to point out that while the fiscal year

for the Government is July 1 to June 30, the National Center fiscal year begins June 24 to June 23, running almost a year after the fiscal year of the Government.) We also set up five phases of development in program, all of which have been met, so that we are at the point where we actually need not \$750,000., but \$700,000. which we hope and pray you can include in the fiscal 1972 budget which you have under consideration. With this extra \$100,000. we will be able to move ahead. We presently have two of the four scheduled regional offices set up, and we would like to proceed with the other two. In addition, we have several staff openings, increases in our leasehold expense and other areas requiring additional funds. Because we have done so well we would like to be able to continue the momentum at which we find ourselves and to continue to develop staffing and areas of program that will build up to the time, about two years ahead, when we will have the permanent Center constructed and ready for occupancy. We are sure that Dr. James F. Garrett, the S.R.S. Director of the National Center permanent project, would support us in regard to the necessity for additional funds, as he and other members of the S.R.S. staff are keeping in very close contact with the work of the Center. A screening committee has recently reviewed our Annual Report and were most commendable with respect to the conduct of the Center and the progress that is being made. We feel that our request for the extra \$100,000. is a valid one, based on accurate estimates which are possible at this time. We feel that our original estimate for the program, made some four or five years ago, was not too far off the mark.

Mr. Chairman and members of the Committee, if Helen Keller had lived she would have been 91 years old on June 27, 1971. I would like to quote a few lines from a speech which she made several years ago at The Industrial Home for the Blind:

"Ever since I realized as a young girl that there were people without sight or hearing unbefriended, untaught, I have passionately prayed for and sought a solution of their problem. The consciousness of the heartbreaking lot of this, the loneliest, most isolated and defenseless group among the blind has always been a bitter drop in the cup of my own blessings.....The program for the deaf-blind so ably conducted by the Home (The Industrial Home for the Blind) is practical as well as humane, and should be enlarged so as to employ a larger number of persons who neither see nor hear. It is also urgent that similar programs be established in cities throughout the United States. For this double purpose a national service dedicated to the deaf-blind is essential, and I pledge myself to do what I can for its accomplishment."

The National Center, Mr. Chairman, represents Helen Keller's lifelong wish, and this has been made possible by the creation of the National Center by Congress. We are pleased and humbled to help to carry forward this vitally needed national service to deaf-blind persons toward the goal that one day in the foreseeable future, this program will provide for the needs of deaf-blind youths and adults throughout the nation.

Mr. Chairman and members of the Committee, thank you very much for this opportunity to present this statement to you and the Committee.

PETER J. SALMON

SUBCOMMITTEE RECESS

Senator MAGNUSON. We are going to have to recess this meeting until 2 o'clock for some other commitments. Dr. Bates was next on the list. Is he here?

We will have to come back at 2. Then we have Norman Levin and Dr. Kirsten, Dr. Stillman, Dr. Bernstein, Mr. Ogden, and Dr. Reed; Dr. Bernstein, Mr. Ogden, and Dr. Reed are on the regional medical program; Dr. Clifton, Dr. Seegmiller, and Dr. Washburn on the National Library of Medicine.

We will have to hear you all at 2 o'clock.

We will recess until 2.

(Whereupon, at 11 :45 a.m., the subcommittee was recessed, to reconvene at 2 p.m.)

(AFTERNOON SESSION, 2 O'CLOCK, FRIDAY, JULY 16, 1971)

DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE

NONDEPARTMENTAL WITNESSES

STATEMENT OF JAMES E. BATES, D.P.M., AMERICAN ASSOCIATION
OF COLLEGES OF PODIATRIC MEDICINE

ACCOMPANIED BY ROBERT W. OLIVER, EXECUTIVE DIRECTOR

INTRODUCTION OF ASSOCIATE

Senator MAGNUSON. The subcommittee will come to order.

Senator Cotton was unexpectedly called to New Hampshire. He won't be here. There will be some other Senators here. We will start right off.

Dr. BATES. I am pleased to be here today to testify for the American Association of Colleges of Podiatric Medicine.

My name is James E. Bates. Appearing with me is Robert W. Oliver, executive director of the American Association of Colleges of Podiatric Medicine.

PREPARED STATEMENT

You have our full statement for the record.

Senator MAGNUSON. We will put it in the record in full.

(The statement follows:)

(2879)

My name is James E. Bates, I am the President of the Pennsylvania College of Podiatric Medicine and President of the American Association of Colleges of Podiatric Medicine. Accompanying me today is Robert W. Oliver, Executive Director of the American Association of Colleges of Podiatric Medicine.

Mr. Chairman and members of the Committee, I am pleased to be afforded this opportunity to appear before you to outline the views of the American Association of Colleges of Podiatric Medicine on appropriations for the 1971 Amendments to the Health Professions Educational Assistance Act.

The Association of Colleges is a voluntary, not-for-profit corporation, and its member colleges of podiatry are accredited by the American Podiatry Association's Council on Podiatry Education,

the agency recognized for this purpose by the Commissioner of Education, U. S. Department of Health, Education and Welfare, and the National Commission on Accrediting. Our colleges are private, independent, non-profit institutions. Their educational programs require four years of podiatric medicine, preceded by a minimum of two years pre-professional education. A substantial number of podiatry college graduates also complete an additional year of internship in hospitals and colleges of podiatry, frequently followed by an additional year of specialized residency training. Podiatrists are licensed by examining boards in every state to treat the foot by medical and surgical means.

PODIATRIC MANPOWER REQUIREMENTS

As a direct result of the provisions of the Health Professions Educational Assistance Act of 1963 and its subsequent amendments and extensions, the colleges of podiatric medicine have increased their enrollment by 84.6 percent since 1964-65. Further during this period, there has been an increase of 172 first-year students, representing an increase of 105 percent. Despite this increase in the number of graduates, the demand for podiatrists in this nation still outdistances the supply, making ever more critical the podiatric manpower problem. The importance of podiatry is illustrated by the fact that in 1967 the Congress included podiatrists' services for Medicare beneficiaries. Also, Title XIX programs in the

various states utilize the services of podiatrists. Increasingly, podiatrists are being sought for positions on community health teams. The armed services have more than doubled the spaces for podiatrists in the last five years and further expansion is projected. And, with the growing importance of pre-paid group practice, including Health Maintenance Organizations, podiatry education is further challenged to provide additionally needed sources of podiatric manpower.

The U. S. Department of Labor in Report No. 323, "Health Manpower 1966-75 - A Study of Requirements and Supply," stated: "Some increases in facilities are expected as a result of funds provided by the Health Professions Educational Assistance Act of 1963. However, a great deal of additional action is necessary to increase the capacity of the schools."

The Bureau of Health Professions Education and Manpower Training of the Department of Health, Education, and Welfare entitled "Podiatric Education and Manpower," notes: "The ratio of active podiatrists per 100,000 population is expected to increase slightly, from 3.8 at the present time to 4.2 by 1980. With the potential utilization of one podiatrist per every 10,000 persons; this ratio

of ten podiatrists per 100,000 population prescribes the need for 24,000 active podiatrists by 1980, compared with an anticipated supply of 9,900." The report goes on to say: "Increased numbers of podiatrists are needed for direct services, education and research."

Mr. Chairman, we believe that given the fact that in only six years we have been able to increase first-year enrollments over 100 percent, and during the same period of time increase graduates by 97.5 percent, demonstrates not only the commitment of our colleges to the goals of the Health Professions Educational Assistance Act, but more importantly, our success to date in actually achieving the health manpower goals.

However, by 1980 there will be approximately 9,900 licensed podiatrists, as compared to the need for 24,000, a shortage of over 14,000 podiatric physicians. In reality, therefore, our success to date is in fact being outstripped by the increased demands for greater podiatric manpower to meet the foot health needs of our nation. Mr. Chairman, you and your committee members can appreciate the obvious and crucial need for continued financial assistance to podiatric colleges if we are to provide the type of total health care to the people of our great nation.

HPEA SUPPORT OF PODIATRIC EDUCATION

INSTITUTIONAL GRANTS: To date, colleges of podiatric medicine have used their Institutional Grants almost exclusively to employ new faculty, converting part-time faculty to full-time faculty, and providing supporting staff. As a result, the education of podiatrists has been considerably strengthened and enriched.

SPECIAL PROJECT GRANTS: Special Project Grants have been used to augment the faculty programs to provide additional supporting personnel, for expanding teaching aids in both the basic sciences and clinical sciences as well as for related faculty improvement projects.

CONSTRUCTION: Of the five colleges of podiatric medicine, one college has been awarded a Federal construction grant. Of the remaining four institutions, three have approved but unfunded construction grants. Attached to my statement is a plan for "A Systematic Approach for Reducing Podiatric Manpower Shortages." I am including this for the record as this plan calls for the full expansion of our present teaching institutions, plus the construction of four new colleges.

STUDENT LOANS AND SCHOLARSHIPS: The support received to date has been far short of the actual need. Between academic year 1968-69 and 1969-70 student loans decreased 52.6% in a period of rising academic costs. We find it rather difficult to understand that the present legislation requires increased enrollments to be eligible for Institutional and Special Project Grants, while on the other hand the availability of loan and scholarship funds has been drastically reduced.

CONTINUED FEDERAL ASSISTANCE

INSTITUTIONAL AND SPECIAL PROJECT SUPPORT: Our colleges have two primary types of support: tuition and Health Professions Educational Assistance Act funds. May I also point out that of the seven health professions receiving support from the HPEA Act, podiatry is the only profession that does not have a percentage of its' institutions affiliated with a university complex. Our financial problems are severe at the present time; and without the levels of Institutional Grant support and Special Project support contained in S.934, all our colleges will find themselves in catastrophic circumstances. When one looks at the projected shortages of podiatrists, one sees the dilemma that would result if we were not to receive the type of support called for in S.934.

CONSTRUCTION SUPPORT: As I stated earlier, only one podiatry college has received matching construction funds. At the present time, construction grants for three colleges totaling approximately \$8 million dollars are approved but unfunded. All five colleges of podiatric medicine have expanded their student enrollments to a point that if they are to continue to accept larger classes then it becomes imperative that funds be made available for new and additional facilities. The appropriations for 1972 should include at least 25 percentum for construction grants for schools of podiatry, pharmacy, optometry, and veterinary medicine. These four health professions already have a backlog of nearly \$90 million dollars of approved but unfunded construction programs. Forty percent of the schools and 32 percent of the students receiving Health Professions Educational Assistance funds are enrolled in these health profession schools.

STUDENT LOANS AND SCHOLARSHIPS: The Association of Colleges urges the Congress to appropriate the authorization levels contained in S.934. Past experience indicates that this level of support is necessary if we are to ensure for the future a supply of practitioners without limiting matriculants to the upper socio-economic strata.

TRAINEESHIPS AND FELLOWSHIPS: We are hopeful that the Congress will see the wisdom in supporting grants for training, traineeships, and fellowships (contained in H.R. 8629) for the advanced training of individuals to enable them to teach or improve their teaching skills. This particular provision would greatly assist our institutions in upgrading the professional teaching competence of our faculties.

The investment by the Federal government in our colleges of podiatric medicine has enabled us to far exceed our own goals of providing quality foot care to the people of this nation.

Your dollars have been used most frugally. With continued interest on the part of the Federal government these dollars will continue to be a good investment. We have the ability to provide the manpower that will render the type of care needed by our citizens. We are dependent on the continued interest and support of the Federal government if we are to fulfill these unmet needs in health manpower.

Thank you, Mr. Chairman. If there are any questions I will attempt to answer them.

AMERICAN ASSOCIATION OF COLLEGES OF PODIATRIC MEDICINE

20 CHEVY CHASE CIRCLE, N.W., WASHINGTON, D. C. 20015



202 — 362-2707

May 24, 1971

A SYSTEMATIC APPROACH FOR REDUCING PODIATRIC MANPOWER SHORTAGES

First-Year Podiatric Students

(A) Given present levels of federal support the five existing colleges plan on 347 first-year students in the academic year 1971-72, increasing to 460 in 1974-75 and staying at about that level.

(B) If the existing five colleges of podiatric medicine were to receive full funding for Institutional, Special Improvement, Continuation and Supplemental Grants and funding of approved construction in three of our colleges, then it would be possible starting with the academic year 1971-72 to increase first-year enrollments to 112 per institution, or a total of 560 in 1971-72. Considering that there are only five institutions this is the maximum number considered possible.

(C) If one new school could be opened annually beginning in 1973-74, with 50 students in the initial class and 112 students the following year, the number of schools would be nine in 1976-1977. Thus 386 more students could be added to the 560, for a total of 946.

Graduates

About 92 percent of the entering students are expected to be graduated four years later. Thus the numbers of graduates under the assumptions outlined above become as follows:

Academic Year	(A) Five Schools <u>Current Estimates</u>	(B) Five Schools <u>Full Expansion</u>	(C) Nine Schools
1974-75	330	515	515
1975-76	358	515	515
1976-77	408	515	561
1977-78	415	515	664
1978-79	420	515	767
1979-80	<u>420</u>	<u>515</u>	<u>870</u>
Total Graduates	2,351	3,090	3,892

Thus the numbers of graduates may be increased by 739 or by 1,541, in accordance with these assumptions.

Manpower Requirements

The article in the June 1970 issue of the Journal of Podiatric Education, prepared by the Bureau of Health Manpower Education, indicates a shortage in 1980 of about 14,000 active podiatric physicians. The anticipated supply of nearly 10,000 practitioners is based on the current estimates of graduates from the five existing schools (Assumption A). The requirement for about 24,000 physicians is based on a potential for utilization of one for every 10,000 persons in the United States.

The shortage of about 14,000 podiatrists in 1980 could be reduced by only five percent, if the five schools go to full expansion (Assumption B).

However, if the number of schools is also increased to nine, with full expansion (Assumption C), the shortage could be cut another six percent.

Robert W. Oliver
Executive Director

FUNDING OF PODIATRY COLLEGES

Dr. BATES. It is my purpose here this morning to urgently request, Mr. Chairman, that your committee place itself on record as unanimously supporting the funding of podiatry colleges at an appropriations level equivalent to the authorization levels contained in S. 934.

I am pleased to report to you that the colleges of podiatric medicine have fulfilled the objectives of the health manpower legislation since our inclusion in 1965. Let me emphasize several points:

We have increased first-year student enrollment in our colleges by 105 percent;

We have improved the quality of education;

We have trained young men and women to recognize and consequently meet the health needs of this country, despite the fact that there is still a critical shortage.

If we are to achieve the unmet needs of podiatric manpower by 1980, we will need to graduate an additional 14,000 doctors of podiatric medicine. While we recognize that this challenge seems insurmountable, we feel that this must be given a high priority.

You gentlemen are gravely concerned with the spiraling cost to the Federal Government in supporting health education. In this regard may I stress that inadequate foot care is a hidden cost of rising taxes. Many persons become wards of the Government because they are disabled by foot ailments. The aged become bedridden because of a lack of foot care, and thousands more limp through life suffering needlessly from troubles that could have been alleviated by podiatric care.

Our teaching institutions today provide care to tens of thousands of people who would otherwise find even minimal relief unavailable. The profession during the past year rendered 30 million treatments, and even this number is only a small percentage of those that needed it. Many areas of this country do not have podiatric manpower even on a minimal basis.

I am fully aware that the authorization bills passed by the House, 8629, and the Senate 934, will be going to conference in the near future.

Senator MAGNUSON. Here we go again.

Dr. BATES. I am trying to avoid that. I was here this morning.

Senator MAGNUSON. Yes. Then you know about pending legislation. Go ahead.

Dr. BATES. The House bill provides an \$800 level of institutional support per student of podiatry; whereas the Senate bill provides a \$900 level plus a \$400 incentive for increasing student enrollments. Regardless of which level is approved in conference, the final result will be a very low level of support for podiatry capitation grants.

It is, therefore, imperative that podiatry colleges be guaranteed that they will receive the finally approved authorization level for institutional grant support. Unless this can be accomplished, I can unfortunately assure you that colleges of podiatric medicine will most certainly be placed in a position of severe financial distress.

Podiatry has come of age as a full member of the health team. Much of this is due to the support given our colleges through the Health Professions Educational Assistance Act. It is difficult, if not impossible, to fulfill these responsibilities with our limited resources. We do

not have the income from hospitals, research, and other endeavors of some other professions.

We have the ability to provide the manpower that will render the type of care needed by our citizens. We are dependent on the continued interest and support of the Federal Government if we are to fulfill these unmet needs in health manpower.

Thank you, Mr. Chairman. If there are any questions, I will attempt to answer them.

Senator MAGNUSON. I have no questions except that I appreciate that we are all talking again about institutional grants and the related health professions. More direct institutional support, and we don't have a bill.

Mr. OLIVER. We are aware of that, sir.

Senator MAGNUSON. It is good that you are giving the testimony because if it does happen that, as I mentioned this morning two or three times to other people, if it does happen that they get the bill signed, sealed, and delivered and the Budget sends up a recommendation before we get at this bill, maybe we can consider it.

But I am afraid as a practical matter the House won't do it because they want to have hearings on the specific appropriations for the new authorizations in the bill.

Now that would mean a delay at least until next fall and then the department would probably come up in a supplemental. Then we can discuss it. We can't put money in this bill if there is no law, no authorization, even if we wanted to.

It is good to have your testimony because that will be a background for us if and when it does come up.

Dr. BATES. That was our purpose in wanting to bring this to your attention.

Senator MAGNUSON. We will be here then and we will have lots of witnesses, probably the same people will come back.

I understand the problem here. You are a little like two or three who testified this morning. You have been kind of orphans around.

Dr. BATES. We feel that way.

Senator MAGNUSON. Even under the existing authorizations there is still some reason to add some money for this purpose. We will take a look at it. Here is the institutional support last year which was \$147 million. The budget has zero now. We will take a look at it then.

The same is true here with the nursing people and several others who are waiting on this bill. Construction is zero. Even if we put some money in for construction, they wouldn't spend it anyway; they would freeze it.

Mr. OLIVER. One of our great concerns, speaking for the podiatry profession, under the act that just expired is the fact that unfortunately due to the tremendous financial distress of many medical schools across this country and in some cases dental schools, they have siphoned off the limited amount of money that some of the smaller health professions were going to get to meet this need. As a result it is placing these smaller important health institutions in a very difficult financial position.

Senator MAGNUSON. They are all in a difficult financial position, big and little. I haven't heard any testimony here for 7 weeks that has

not been to that. There has not been a soul who showed up and said they are satisfied with this budget. Not a soul!

Mr. OLIVER. I guess that relates to the priorities.

Senator MAGNUSON. And the priorities, there is always a difference of opinion about priorities within these large amounts and it usually involves some administrative policy downtown. I suspect the reason that they have not done much about this is because they were anticipating a new group of programs.

When we get them, then we will take a look to see what we can do, at least to consider something under the new authorization for you.

Thank you.

Dr. BATES. Thank you, Mr. Chairman.

STATEMENTS ON LEAD-BASED PAINT POISONING BY COMMITTEE OF HOSPITALS OF BROOKLYN TO ERADICATE LEAD POISONING, SIERRA CLUB, ENVIRONMENTAL ACTION, AND FRIENDS OF THE EARTH

Senator MAGNUSON. Statements received by the subcommittee concerning lead-based paint poisoning will be included in the record.

(The statements follow:)

STATE UNIVERSITY
OF NEW YORK
DOWNSTATE MEDICAL CENTER

• DEPARTMENT OF PEDIATRICS

June 10, 1971

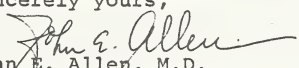
Honorable Senator Warren Magnussen, Chairman
Committee on Labor - HEW
Senate Appropriations 1235
New Senate Building, Washington D.C.

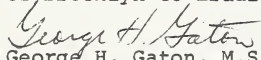
Dear Senator Magnussen:

Enclosed you will find a copy of the Position Paper on Lead Poisoning written by the Committee of Hospitals of Brooklyn to Eradicate Lead Poisoning. The Committee is made up of physicians and other hospital staff who are working daily with the problems of lead-poisoned patients and doing important research in this field. This document is the result of much thought and consultation within a group of medical professionals who are extremely familiar with all of the aspects of lead poisoning.

We submit this Position Paper in the hope that it will help you to see as clearly as possible the need for high priority action regarding this danger to the health of children. As an immediate first step we request that you assist in the full funding and implementation of the Lead-Based Paint Poisoning Prevention Act signed earlier this year by President Nixon.

Sincerely yours,


John E. Allen, M.D.
Professor of Pediatrics
Chairman, Committee of Hospitals
of Brooklyn to Eradicate Lead Poisoning


George H. Gaton, M.S.W.
Chairman, Sub-committee on Position Paper

THE ERADICATION OF CHILDHOOD LEAD POISONING

INTRODUCTION

The material that you are about to read represents the combined work of the Committee of Hospitals of Brooklyn to Eradicate Lead Poisoning.

Lead Poisoning is a completely preventable medical, social, and economic disease. It occurs among children who are old enough to walk but not mature enough to be discriminating about what they eat. The necessary ingredients for the occurrence of lead intoxication are a young child with pica (eating of non-food substances), and old dilapidated housing with peeling, lead containing paint and plaster. The disease can be completely eradicated by correcting the toxic environment, primarily by the elimination of poor housing.

Obviously, the cost of such a total program would be very large. This, however, must be evaluated in terms of what is already being spent on long term hospitalization of threatened and affected children, screening programs and patch work repairs on inadequate housing that remains a potential menace. It is clear that lead poisoning is not merely a health problem but a deeply rooted social, economic and education equation which will be solved only through the combined involvement of housing, social and education as well as health agencies.

The three statements presented in this position paper are designed to: inform you, to arouse, and involve you along with this committee and every responsible segment of our city and nation who cares - in the struggle that it will take to move the agencies and agents of power in this nation to remove this preventable malady from our midst.

Everyone from the President of the United States to the last man of us - must try to break the gripping chains of bureaucracy and priority, to at once rid ourselves of this completely preventable disease. We cannot allow for less than eradication if we are to SAVE THE CHILDREN.

THE CAUSE AND EFFECT OF LEAD POISONING IN CHILDREN

Lead Poisoning in early childhood is a chronic disease which may involve most of the organs of the body including the brain, intestine, the kidney, the blood forming organs, and the heart.

Lead ingestion by young children is invariably associated with the phenomenon of pica, eating non-food material such as lead containing chips of old peeling paint and plaster. Since only a small amount of lead is absorbed from the intestine following each ingestion, repeated intake is necessary for intoxication to occur. It begins to accumulate significantly after 6 weeks of ingestion, and symptoms may occur in about 3 months. This further amplifies the need to identify these children early, because of the significant damage that can take place between ingestion and the appearance of symptoms. A few chips of paint may contain an excess of 100 times the safe amount of lead which may be ingested daily. Once the body has acquired an excessive load, the lead is stored in the tissues, chiefly bone, and is excreted in the urine, very slowly, over a long period of time.

When the lead load is sufficient, it causes overt intoxication with widely diffuse manifestations, such as constipation, anemia, kidney problems, vomiting, lethargy, convulsions, coma and, at times, mental retardation and even death. Children with evidence of intoxication must be hospitalized and promptly treated. Currently, efforts are being directed toward early detection of children with increased body lead, but before they demonstrate overt signs of poisoning. It has not been clearly established, but it is possible that long sustained low lead levels may be associated with long term, low grade brain toxicity. Some of the disruptive children in our schools may in fact, be examples of the subclinical effects of lead. These youngsters might have been spared the problems of adjustment that they now experience if they had been identified and promptly removed from their lead containing environment. In addition, they need to be helped with medication to assist in clearing the lead from their tissues to prevent the occurrence of severe toxic manifestations. These aims can be accomplished on an outpatient basis only if these children can be returned to housing that is lead free.

THE SOCIAL ASPECT OF CHILDHOOD LEAD POISONING

The persistence of lead poisoning in pre-school children living in our urban ghettos is one of the most significant indices of how far we still have to go to obtain optimum health for our children. The families of the children at risk are, for the most part, without the financial resources to provide their growing children during, and after conception, with the proper nutrition, housing, and other basic essentials to enable them to develop normally, both physically and mentally. Poverty remains implicated as the major cause of lead poisoning.

When ever we discuss health care in general and lead poisoning in particular, we are obligated to place heavy emphasis on a number of factors that are technically outside of the pure health consideration, but they nevertheless play a significant role in retarding the delivery of acceptable health care. The major cause of lead poisoning in children is inadequate, deteriorating housing which has not been corrected because of lack of funds. The fact is that so long as billions are going into defense when the health of the country requires the reconstruction of our slums, equality for minority groups, and the reconstruction of our economy, lack of "budget" is no excuse for the failure to remedy housing that kills young children and deprives them of their full potential. That this state of affairs continues to exist is but another example of the need to reorder our priorities so that they relate to the needs and concerns of people. The social ramifications of lead poisoning reaches into every aspect of ghetto community life, where the ill effects of poverty and poor housing dominates every phase of daily life.

It is apparent that the problem of lead poisoning reaches into and challenges the functioning of so many of our governmental institutions, and that it must be seen as much more than a medical problem and recognized for the tremendous socio-economic governmental phenomenon that it is. We have seen sincere efforts made by some of our public health and other governmental officials stymied because of the bureaucracy, low priority and fragmentation of services that result in draining off the gains that could be made toward solving the problem. We must find a way

to coordinate the efforts being made by various groups and governmental agencies into the effective vehicle that would end the fragmentation that is hurting the efforts of so many. We need the governmental officials, the politicians, the community, and the health agencies to work from an informed coordinated central base and short of this we will simply continue fragmentation of effort and service by various well-intentioned groups and in the end do very little toward the eradication of lead poisoning.

THE DOLLARS AND "SENSE" COST OF LEAD POISONING

The menace of lead poisoning and its tragic effects on the children of our ghetto communities, is not only a serious medical and social problem, but it is also a very serious economic problem that should be of concern to all. It is often difficult to maintain a high level of interest in a problem that does not affect oneself directly. So it must be made clear that we are all affected, at least financially, by the continued existence of lead poisoning.

The price that we are paying to handle it by current methods may be above and beyond what it would cost to eliminate it at its source. It has been clearly established that old and deteriorating housing conditions where the paint and plaster are peeling from their surfaces, is the source of the lead that poisons and intoxicates the children. If this source were not available, there would be no lead poisoning. It is this fact that makes lead poisoning a completely preventable disease.

That our society continues to tolerate a lethal poison within our midst is a terrible commentary on our order of priorities; a willful disregard for the loss that we all inevitably suffer when potential human resources are unfulfilled, maimed, and rendered dependent on the society.

The present method of treating this illness consists of two parts: firstly, medical treatment that retards the effect of the lead poison; and secondly, the period that the child spends in the hospital after treatment while his home is being repaired. The first process takes about 7 days to complete; the second requires as many as 50 days; which is a total of approximately 57 days that the child may spend in the hospital because of lead poisoning. It should be noted that many children have returned to homes that have not been repaired and have re-ingested the poisoned paint or plaster and have had to be hospitalized again and again.

We know that almost every child that is hospitalized with lead poisoning is eligible for Medicaid. Since hospital rates are frequently in excess of \$100.00 per day and the typical hospital stay is 57 days per child, it can cost more than \$5,700.00 per child. Even if the length of the hospital stay is cut in half it would still be over \$3,000.00 per child. Repeated admissions, of course, double and triple these figures. These figures must be looked at in relationship to the cost of rehabilitating an apartment which has been estimated by private contractors at approximately \$2,000.00 per unit. As has been repeatedly stated above, the only way to insure against lead poisoning and its tragic effect is to remove the poisoned substances from the apartment. When we contrast the cost of \$2,000.00 to do this against the \$5,700.00 or more per child that can be spent to treat it medically (these figures do not take into account the loss of potential because of the irreversible damage

to the children and the proportion of deaths that regularly occur) the gross misallocation of resources becomes clear.

Indeed, the figures that we are presenting here suggest that for every child hospitalized with lead poisoning who stays the time required to have his home repaired, we are spending enough money to completely renovate 3 apartments. Here we have only discussed the financial aspect of lead poisoning. We must also consider the waste of medical and technical staffs which could be devoted to seeking methods to prevent and treat other illnesses (such as Sick Cell Anemia).

In lieu of a sweeping new housing construction program, we must focus our energies on the project of rehabilitating effectively those dangerous homes in which our patients and children are forced to live. We must now discuss a serious apartment rehabilitation program that does not suffer from the fragmentation and lack of clarity that is hopelessly apparent in many of the programs presently in operation.

We should also consider the incalculable hardship visited upon the family of those children who are brain damaged. The endless clinic visits; the severe emotional strain of watching a once healthy child now functioning at less than his original capacity and the endless search for special schools that are too few in number to serve the children in need.

How much talent is wasted because of this absolutely preventable disease. It is the height of immorality to allow a completely eradicable disease like lead poisoning to exist unchecked within our midst - The price is too high and time is running out...

RECOMMENDATIONS

The body of the paper has already expressed our feelings that the priorities of this nation are not geared toward meeting the needs of the larger population. The existence of lead poisoning verifies this statement.

Lead Poisoning is completely preventable and the solution to the lead problem requires only one recommendation which we will state as : The Elimination Of All Substandard Housing In This Country.

There are interim programs to be initiated until the housing goal is completed. The children being treated for Lead Poisoning must not return to a poisoning environment after treatment. An extended care facility is essential if we are to stop the cycle of repeated lead ingestion and poisoning.

Funds must be made available to expand existing programs and to develop adequate community screening programs and concomitant back-up facilities. Appropriation of funds to implement the "Lead -Based Paint Poisoning Prevention Act" (Public Law 91-695) must be immediately accomplished. The cost for hospital care is extremely high. Other sources of funds must be made available to eliminate environmental lead.

There are things each of us can do. If you are a private citizen, you can write to your legislative leaders and urge them to pass legislation and appropriate funds to create better housing. If you are a physician or health worker, you can educate

parents and colleagues to the dangers of lead poisoning. If you are the parent of a lead poisoned child you can take all precautions within your home to eliminate or lessen the dangers. Have your children checked at a clinic for lead poisoning. You can join or form a parent's action group to help pressure those who can bring about change. If you are a state or federal legislator you can use all of your power to appropriate the funds needed. If you are the President of this nation you can help change the priorities and use some of this nation's wealth to bring health and equal opportunity to millions of our citizens.

If you want further information as to how you can help, please write or call:
Lead Poisoning Information, Kings County Hospital, 451 Clarkson Ave. Brooklyn,
New York -- Att: Social Service, Pediatric OPD, Ground Floor, A Building,
IN 2-4000, Ext. 6795, 6793, 6827.

SIERRA CLUB, 235 Massachusetts Ave., N.E., Washington, D.C.

ENVIRONMENTAL ACTION, 1346 Connecticut Ave., N.W., Washington, D.C.

FRIENDS OF THE EARTH, 620 C Street, S.E., Washington, D.C.

July 9, 1971

Hon. Warren G. Magnuson, Chairman
Subcommittee on Labor, and Health, Education, and Welfare, and Related Agencies
Committee on Appropriations
U.S. Senate
Washington, D.C. 20510

Dear Mr. Chairman:

We are writing to urge full funding of a program for early detection and treatment of children's poisoning from lead-based paint. As conservation organizations we have decried the damage being done to the environment by lead pollution of our air, soil, water and food supplies, but there is another, equally as serious, form of lead pollution which is directly affecting thousands of children. The environment in this case is the ghetto and the pollution source is lead-based paint, cracked and peeling from old walls, which is eaten by children and lingers in their bodies to cripple, retard and kill.

While we wait for action, an estimated 250,000 to 400,000 children are affected by lead poisoning annually. In its severe forms lead poisoning has a variety of debilitating physical effects which range from kidney disease to blindness, brain damage, mental retardation and death. We consider this to be an intolerable situation in light of the fact that Congress has already enacted legislation authorizing a program which would prevent this fatal illness.

In January of this year Congress passed the Lead-Based Paint Poisoning Act, P.L. 91-695, which authorized a total of \$30 million for detection and treatment programs: \$10 million for community education and screening programs, \$15 million for detection and removal of lead paint; and \$5 million for federal research. Even though the law has passed, it has yet to be funded in any way. We deplore the fact that the Administration is only asking for \$2 million to be used for pilot programs in fiscal year 1972. The few programs undertaken by such cities as New York, Chicago and St. Louis could use more than \$2 million to locate and treat all the poisoning victims in their cities alone. A program begun only this year in the inner city area of Washington, D.C., showed that ten percent of the children tested had unsafe levels of lead in their blood, and several children required hospitalization. Many more cities are beginning to see the necessity for such programs and are requesting funds. There is an urgent need for a fully funded program which will attack this problem immediately.

Hon. Warren G. Magnuson

-2-

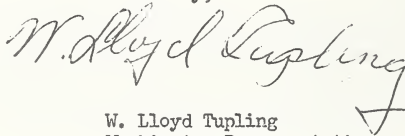
July 9, 1971

The concerns of conservationists embody a desire for a healthy and livable environment for all citizens. Our members by and large live and work in and around cities. Their concerns arise out of the experiences they have had in cities and their desire to see the problems of urban pollution solved. What we have learned about pollution and its effects have pointed to the need to address ourselves to such problems as poisoning from lead-based paints.

The prior ecological ignorance that allowed people to use lead-based paint should not be compounded by failure to treat the victims of that ignorance. And, failure to appropriate the monies and initiate the programs would be a false and tragic "economy." Which is more expensive: healthy and productive citizens or sick and dependent ones? The ultimate result of any form of pollution is that it has a debilitating and even lethal effect on a life-support system, and the earth's environment, all of it, is our life-support system. We know you, too, to be concerned with the problems of urban pollution and urge full funding of a program for combating the causes and effects of children's poisoning from lead-based paint.

We would like to request that this letter be made a part of the hearing record.

Sincerely,



W. Lloyd Tupling
Washington Representative
Sierra Club



Avery Taylor
Environmental Action



George Alderson
Legislative Director
Friends of the Earth

cc: Members of the Subcommittee on Labor, and Health, Education, and Welfare,
and Related Agencies

STATEMENT OF NORMAN LEVIN, PRESIDENT, WESTERN HEALTH
FACILITIES, INC., SEATTLE, WASH.

ACCOMPANIED BY MICHAEL STERNBERG, COUNSEL

NURSING HOMES

Senator MAGNUSON. Mr. Norman Levin.

Mr. LEVIN. I would like to preface my statement by an introduction of Michael Sternberg, legal counsel.

Second, I would like to say, Senator, that I do not represent an association or organization of that nature of the nursing industry. I am an individual. I want to make that clear because I often differ with the statements made by the industry.

Third, you will be pleased to hear I want to deal exclusively with existing legislation. OK?

Senator MAGNUSON. That will be fine. Of course, that won't foreclose you for other legislation.

Mr. LEVIN. Right.

Senator MAGNUSON. Just for a while, temporarily.

Mr. LEVIN. Fourth, to give you the alternative, it will take me 10 minutes to read this, but 20 minutes to summarize it.

Senator MAGNUSON. Go ahead.

Mr. LEVIN. I might say the second page is the nitty-gritty. The first page will give you a little background of why I am here.

Senator MAGNUSON. We will put the full statement in the record.

Mr. LEVIN. Several weeks ago the nursing home industry found itself cast in the familiar role of the "heavy" of health care. As you know, the heavy, in the vernacular of the theater, is the bad guy nobody loves—a pariah and a reprobate. The plot, dialog, and the villain were all very well known to the American public who has come to expect nothing but the worst from these dramatic exposés. Only the hero had been changed, and instead of a Nader high school medical expert or an incognito Congressman, the good guy in the white hat turned out to be none other than the man from the White House—the President of the United States.

What does one say about charges of overcrowding and understaffing when they are made by the Chief Executive of this country? How does one defend against a blanket condemnation of nursing homes, characterized as "warehouses for the elderly"? By writing blustering letters of self-righteous indignation? By quoting statistics calculated to impress even the most zealous of critics?

No. The sad truth is that the public demands only one class of nursing homes—first class—and will not listen to refutations or arguments in defense of anything but the very best. And therein lies the rub, for the best means dollars, dollars not available in the past, the present, or as far as I can determine, the future.

Well, if the public demands first class, and the Government or private industry can afford only steerage, wherein lies the solution? Certainly not in the irresponsible harangue I have already described, or in the inflammatory articles one reads almost daily on life in the deadful nursing home. The only answer is to come to grips with the real issues and problems, and work together—Government and private industry—in their resolution.

What then are some of the more salient issues with which we wish to deal? No. 1 is the recognition that there are substandard and marginal facilities, and that they must not be encouraged to flourish at the expense of human dignity and self-respect. We want that firmly established. We are not kidding anybody.

No. 2, the nursing home is an important and legitimate member of this country's health care team, and that the great majority of homes are doing a magnificent job in caring for the sick and elderly.

No. 3, that the proprietary facility is a positive factor in the delivery of health care to the community; and

No. 4, that there is a correlation between good care and dollars spent for same. Permit me to deal briefly with each of these.

There are few nursing home operators, indeed, who do not agree that substandard, unlicensed homes must be upgraded or shut down. They are unconscionable, and a moral blotch on the reputation of the industry. Why then doesn't the State agency responsible for policing nursing homes simply revoke the license of those not in compliance with State law and prosecute those operating without a license? The answer, very sadly, is that these agencies ignore and thereby encourage the existence of these facilities for they serve as a cheaper alternative to the care provided by homes in full compliance with State and Federal laws.

And yet the State agency faces a terrible dilemma: do nothing and encourage substandard care, or take action and chance and resurrection of the county poorhouse. It is, therefore, incumbent upon all responsible Government officials to recognize the whole problem with all of its ramifications. To cite the existence of these substandard homes as being representative of the nursing home industry is cynicism in its most virulent form.

The problem of receiving recognition as a full and legitimate partner in the deliverance of health care to the community has always caused the nursing home industry great anxiety and concern. Many of us felt that with the advent of title 18 (medicare) and title 19 (medicaid) programs, and the concomitant creation of a new hybrid entity, the extended care facility, the question of acceptance would no longer be applicable. I regret that our expectations remain unfulfilled, the Government and consumer being the big losers.

There are a number of reasons for this negative attitude. One is the inability to separate in the mind's eye the new from the old. President Nixon used as an illustration of the inadequacy of nursing homes the hearsay that numerous physicians refuse to visit these facilities because "they found them too depressing."

Now, I think it is about time we put an end to this old canard. It may have been depressing 20 years ago, when old converted mansions were being utilized as homes for aged and sanitariums, but to state that the modern, sophisticated nursing facility is more depressing than, say, a general hospital is pure, unadulterated nonsense.

Granted, there may still be in existence a number of old homes that could be described as "depressing," but I assure you nursing homes do not hold a monopoly on this description. How many hospitals today fall under the same category? Has anyone heard of a medical doctor refusing to attend his patient in that type of hospital? Sickness can be depressing; aging can be depressing; and the physician who

who refuses to care for either because he is depressed, rates very low, in my estimation.

This party insurance carriers have steadfastly excluded nursing homes from their medical coverage with the exception of an occasional sop here and there. This exclusion, perhaps more than any other factor, has prevented the use of extended care facilities as viable alternatives to acute hospital care for subacute patients.

The key to reduced cost of institutional health care lies in the proper utilization of all inpatient facilities. Ideally the acute care hospital should direct its very sophisticated medical, nursing, and physician capabilities to only that patient requiring this intensive care. Assuming the patient continues to require skilled nursing care on a less intensive scale, he should be transferred to an extended care facility.

A very interesting monetary phenomenon then occurs: the cost of hospital care goes up—perhaps as high as \$250 per day, remember that only the acute ill patient is being cared for, but the overall cost of caring for that patient will be substantially reduced. This is due, of course, to the fact that the operating costs of the extended care facility is much less than the hospital.

The hospitals have frontloaded the cost, preparation, operating room. The care might be \$250 a day. The care on the remaining portion of that will be appreciably reduced.

Congress had this alternate concept in mind when it enacted the title 18 program. However, in just 4½ years extended care facility benefits, as a practical matter, have been eliminated. At the instigation of the Social Security Administration, the fiscal intermediaries—Blue Cross, Mutual of Omaha, et al—proceeded to tighten up the utilization of ECF's under part A of the program. Strangling would seem to be a more apt description.

Thousands of elderly patients, who on good faith and upon certification of their attending physician entered the nursing home, have found that the doctor, the provider, the utilization review committee of the provider, all were being overruled by the intermediary.

And who are these "experts" empowered to retroactively deny medicare benefits over the protest of the aforementioned? Perhaps a panel of physicians? Or perhaps a qualified groups of medical authorities? Would you believe that it is most frequently a nurse, acting upon very scanty medical information, who swings the ax?

The consequences of this cruel hoax are very sad. The patient finds himself with a bill of thousands of dollars, very often precipitating financial insolvency. The doctor, because of patient pressure, becomes reticent in using the ECF and retains the patient in the hospital at a far greater cost to the program. And the nursing home, alas, is faced with the unpleasant task of trying to collect for services rendered. I might add that the nursing home is the "heavy" again, being blamed for the whole mess.

The appeal procedure is even more ludicrous. After much redtape and shuffling of paper, the provider is requested to submit from the patient's chart the physician's orders, nurses' notes, therapy reports, and whatever else may be of assistance in reviewing the denial of benefits.

Weeks and months go by before a decision is reached, and the answer is invariably to confirm the denial. As if that were not sufficient,

the Social Security Administration has taken to deny benefits already paid for if, during the review, it is found that the portion of the patient's stay allowed should never have been allowed in the first place. In other words, the appellant chances even more retroactive denial if he is bold enough to protest the initial decision.

Certainly this is not the type of program Congress had in mind for its elderly constituents. These inequities must be corrected, and the use of extended care facilities must be promoted rather than discouraged.

The issue of proprietary facilities in the health care field is particularly puzzling. There are those who hold to the belief that only non-profit facilities can or should provide institutional health care. They base this contention on the premise that a proprietary facility must be first concerned with providing its shareholders with a return on their investment. Ergo, the prime motivation in the for-profit operation must be profit, and not the best care for its patients. They further proclaim that profit and care are incompatible, and, therefore, the proprietary operations will soon meet their demise.

I should like to remind these Cassandras that there exists not one shred of evidence confirming these contentions. Moreover, I am bored to death hearing our nonprofit colleagues malign and slander those who have done so much in improving our industry.

It would seem that our sectarian brothers have a few more important matters with which to be concerned. Where, may I ask, is the brotherly love based on the Judeo-Christian ethic, when compliance with title VI of the Civil Rights Act of 1964 is ignored or circumvented with impunity?

According to the provisions of this act, as you know :

No person in the United States shall, on the ground of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination under any program or activity receiving Federal financial assistance from the Department of Health, Education, and Welfare.

I invite you to visit your friendly neighborhood, sectarian-sponsored home for aged and count the number of black faces among its guests. You will be disappointed, I am sure, to count so very few. This is due, I am told rather unconvincingly, to long waiting lists and other appropriate criteria for admission. I maintain that these homes may have the right to this type of exclusiveness, but not, I repeat, not when they are receiving Federal financial assistance.

Finally, because this committee is vitally concerned with appropriations, I wish to take a moment to talk about dollars. It is inconceivable that Congress could consider a reduction in the budget for skilled nursing and aged mental health care, by \$500 million. I am fully cognizant of the isolated abuses and misuse of medicare and medicaid funds. These cases of abuses are very dramatic, and they provide the detractors of this country's health care system with fuel for their inflammatory attacks.

The truth is that they are numerically insignificant, and do grave injustice to the overwhelming majority of honest and conscientious physicians, hospitals, and nursing homes.

We must not cut off our proverbial nose to spite our face. The greatest bargain this country can buy is an updated, financially sound nursing program. As I have already pointed out, the nursing home

can provide an alternative to hospital care for subacute patients at a savings of millions of dollars.

In conclusion, I wish to state categorically that there are few nursing home operators who would not accept the highest standards and the most stringent supervision if funds were made available to provide only first-class care. Give us the tools, the money to provide this care, and we pledge that we will give this country the finest system of long-term health care in the world.

Thank you for the time, Senator Magnuson.

Senator MAGNUSON. Thank you, Norm.

You are right, we deal with money here, not mainly but almost exclusively. On medicare, the 1971 appropriation was \$2.599 billion. The 1972 budget is \$2.465 billion, down somewhat.

Mr. LEVIN. Yes, sir.

Senator MAGNUSON. This is total for everything. It includes military service credits and others, and hospital insurance for the uninsured, those that pay in that \$5 a month. On medicaid, they did recommend \$1 billion more for maintenance assistance, the budget.

Mr. LEVIN. Yes, sir.

Senator MAGNUSON. From \$5.617 billion to \$6.655 billion this is grants to the States for public assistance.

Now maybe you can help me a little bit here because of your experience in this field. When you take in a person sent to you by the State—

Mr. LEVIN. Sent to us generally on medicare or medicaid?

Senator MAGNUSON. Either one.

Mr. LEVIN. They come from different places. Generally a medicaid patient from a home, but a medicare must come from a hospital.

Senator MAGNUSON. Do they pay you a per diem for that?

Mr. LEVIN. They do.

Senator MAGNUSON. Is that per diem too low?

Mr. LEVIN. The per diem is based upon cost, at least projection of cost. The catch phrase there is "reasonable." Reasonable sometimes in our estimation is not reasonable.

Senator MAGNUSON. Do they review that cost? Do they shop around? Say home A costs x number of dollars per diem and home C costs x more. Would they invariably send the person to home C?

Mr. LEVIN. The problem is that there is such a great variance between those providing the level of care at, say, \$15 a day and those who are providing care at \$30 a day. That has always been a puzzler. Why does it take you \$30 a day to provide a level of care when the guy next door is \$15? The answer is that, of course, there are no bargains in health care.

Senator MAGNUSON. Supposing I am in charge of screening people to go to homes. Do I look wholly at the cost?

Mr. LEVIN. No. As a matter of fact, the cost only comes into it by virtue of your relationship to the intermediary. The hospital making the placement is not concerned with the cost of the extended care facility to whom we are making the placement. What happens is that when it is deemed necessary to move the patient from the hospital in making the placement, he looks for a certified facility to take this patient and there makes the placement. But he doesn't know, for ex-

ample, when he is making the placement—that is, the hospital or physician—whether the patient is going to be covered.

There is no presumptive care. One risks the possibility of denial of admission if the person reviewing the chart feels that the patient should never have been admitted in the first place, because he did not have what they considered skilled nursing care on a continuous basis. It is really in the eyes of the reader based on the chart I feel this man should never have been admitted to an extended care facility.

Senator MAGNUSON. Who says that?

Mr. LEVIN. The intermediary, Social Security Administration.

Senator MAGNUSON. Social Security?

Mr. LEVIN. Sure.

Senator MAGNUSON. It does not mean that when a doctor or the hospital says that "Mr. A, you should go to a nursing home and here is a list," and we pick out this one; it does not necessarily mean that that will be paid for.

Mr. LEVIN. Not at all.

Senator MAGNUSON. Because Social Security reviews it.

Mr. LEVIN. Of course.

Senator MAGNUSON. Do they review it as to individual cases, or do they review it by saying, well, this nursing home is on one of the lists?

Mr. LEVIN. They review by looking at a diagnosis on the billing form which says "diagnosis."

Senator MAGNUSON. Who does that?

Mr. LEVIN. The fiscal intermediary. Our fiscal intermediary happens to be Mutual of Omaha in Nebraska.

Senator MAGNUSON. The insurance company?

Mr. LEVIN. Yes. They review this on behalf of the Social Security Administration. They say, "This is an interesting diagnosis; I don't believe this guy requires care under the program. Consequently, we deny benefits on this date or retroactively or how long it takes to determine it."

The guy who presumed to be covered, "The doctor said I am going to be covered, I am going to the nursing home." So he receives notification: "According to our interpretation, you are not." They may repeal the action, a long procedure.

In my experience and under the program since its inception I have had two reversals of denial of benefits, two in thousands of patients.

Senator MAGNUSON. Is the insurance company—I am asking this because I don't know all these procedures—can the insurance company deny payment?

Mr. LEVIN. Yes, sir.

Senator MAGNUSON. Then what does Social Security do them?

Mr. LEVIN. Social Security generally agrees with the intermediary.

Senator MAGNUSON. They do not look into it independently?

Mr. LEVIN. No, sir. You have to appeal it.

Senator MAGNUSON. You have to appeal it back to them?

Mr. LEVIN. Yes, sir. They generally sit in the same office with the intermediary representative.

Senator MAGNUSON. When will that be found out? Say a nursing home has patient A.

Mr. LEVIN. Depending on how quickly the workpapers go through. When the patient is admitted, they submit a report of eligibility. If

somebody is fouled up, it may be 2 months before a person is eligible for it. Then one can submit a billing. Maybe 2 or 3 months elapse before the first billing goes in so that they can make a determination as to eligibility on the basis of diagnoses.

Senator MAGNUSON. What happens to them if after 2 months he has been in there, and they say he is not eligible? He has to go out

Mr. LEVIN. Tough, very tough.

Senator MAGNUSON. Unless he has private funds?

Mr. LEVIN. Even if he has some private funds, 2 months in an extended care facility can mean \$2,000 or \$3,000. It doesn't take long to wipe him out.

Senator MAGNUSON. I say unless he had some other funding.

Mr. LEVIN. Right.

Senator MAGNUSON. What do you suggest be done to change this?

Mr. LEVIN. I suggest the eligibility of an individual to be presumed to be covered based upon medical diagnosis. At least establish a minimum of days based upon diagnosis. Postoperative cataracts should be in a total of 14 days, hospital and ECF together, and the patient will know he has 14 days in a hospital extended care facility.

Thereafter it is subject to question. The person must know when he is certified by the physician who certifies he must go to the extended care facility for the same reason as in the hospital and not be worried for 3 or 4 months he has to face this future bill.

Senator MAGNUSON. You were talking about white hats and violence in here.

Mr. LEVIN. That's right.

Senator MAGNUSON. I get the impression that the villain in this case is the insurance company.

Mr. LEVIN. I get the impression it is the Social Security Administration and the gunman is the fiscal intermediary, which is the insurance company.

Senator MAGNUSON. Wouldn't they both be villains?

Mr. LEVIN. One to a lesser degree than the other. The other, it occurs to me, is merely a pawn. In other words, you hire an executioner.

Senator MAGNUSON. In the Commerce Committee, of which I am chairman, we have been dealing with auto insurance. We have no problem finding out where the villain is there at all. You don't have to read 2 pages before you know who the villain is. But something ought to be done about this because the social security officials should, upon certification by competent medical people, say to the insurance company, "This is all you need. You pay."

Mr. LEVIN. I would think the same, Senator. But I see they are overruled. The physician has now become—

Senator MAGNUSON. Yes; but the Social Security—maybe I am getting this wrong—the insurance company first overrules them, is that right?

Mr. LEVIN. Yes; that is correct.

Senator MAGNUSON. The minute that happens to patient A, Social Security ought to move quickly and say, "You go ahead and pay this, you can't overrule this, it has been certified."

Mr. LEVIN. I would say that power could certainly be taken away. I don't feel that the insurance company should make that type of decision.

Senator MAGNUSON. They make a general contract and they are liable under it. The guidelines of what they pay are not set up necessarily by them in this field. They are set up by some competent people who say, "This person belongs in an extended care facility." Only the attending physician on examination can know the real condition of that patient.

I am inclined to doubt that the insurance company is just as big a villain as Social Security, trying to cut down their payments.

Mr. LEVIN. I don't think they are solely to blame. They certainly work upon a reimbursement program. If Social Security says to them, "No, look, you fellows, we are spending too many dollars on extended care facilities. Tighten up." Then they have no alternative but to tighten up.

Senator MAGNUSON. If Social Security says you can only spend some dollars.

Mr. LEVIN. It was not a matter of that. It was a matter of making a projection that wasn't accurate. I think if utilization is going to be put into effect, it has to apply to everything. You say, "OK, hospitals, get your people out faster. Nursing home, you get your people out, and then go to intermediate care facilities or go home." But the utilization was directed to nursing homes because it is a convenient market, it always has been.

Senator MAGNUSON. Why should an insurance company want to get cancelled at all? They want to get paid?

Mr. LEVIN. Because of the influence of the Social Security Administration.

Senator MAGNUSON. So we are getting down to where different rules have to be made?

Mr. LEVIN. Yes, sir.

Senator MAGNUSON. It doesn't make any difference to them whether the fellow shouldn't be there or should be there as a medical matter?

Mr. LEVIN. No.

Senator MAGNUSON. Because if he is there, they get paid?

Mr. LEVIN. Of course.

Senator MAGNUSON. But Social Security says, "Well, we want to take a look at these cases." Who submits the final bill to them, Social Security?

Mr. LEVIN. Oh, no; the nursing home.

Senator MAGNUSON. You submit the bill to the insurance company?

Mr. LEVIN. Yes, sir.

Senator MAGNUSON. They say they can't pay it?

Mr. LEVIN. Right.

Senator MAGNUSON. Because Social Security has said that this fellow, patient A, shouldn't be there?

Mr. LEVIN. Right.

Senator MAGNUSON. Is this because of their guidelines, their rules, or an arbitrary decision by one or two people, some bureaucrat?

Mr. LEVIN. They maintain the definition of extended care was really not properly defined in the initial years, they are saying that according to their guidelines they never meant for these people to be covered. It was really more a matter of being like a hospital. If a hospital were not present or if a facility like this were not present, the hospital would be taking care of them.

I don't believe it. I believe it was meant as an alternative to hospital care. Now they are interpreting it as another hospital.

Senator MAGNUSON. Our whole effort is to get as many people out. In fact, I established that principle years ago with the Veterans' Administration. But once the VA certifies that this fellow who is in a VA hospital should go out, the bill is taken care of.

Mr. LEVIN. You bet. We contract with VA and say, "You will pay."

Senator MAGNUSON. That is taken care of.

Mr. LEVIN. We had a former colleague of yours, Senator Martin, who died in one of our facilities. He was under a VA contract.

Senator MAGNUSON. We are relieved a little bit on not only outpatients. We even got a whole care program.

Mr. LEVIN. Sure. That is alternative.

Senator MAGNUSON. Not nursing homes?

Mr. LEVIN. Home health agencies.

Senator MAGNUSON. In the home. It has worked very well with the VA because, as you know, the startling thing, most people don't know it in the United States, but every other bed there is a mental case. We have found we can do a lot with them by getting them out and into home care.

I am glad to get this cleared up. I am going to ask the Department when they come up here why they can't have a little better, more efficient guideline. The only person who gets hurt in the long run is patient A.

Mr. LEVIN. There are a few more people, but they are hurt differently.

Senator MAGNUSON. He is the main guy?

Mr. LEVIN. Not at all. Often the nursing home facility, because patient A does not have the money to pay the bill, he is written off. He has already been provided \$2,000 worth of service.

Senator MAGNUSON. The nursing home has a financial stake in this, but patient A gets kicked out.

Mr. LEVIN. No, he really doesn't.

Senator MAGNUSON. You don't kick them out right away?

Mr. LEVIN. No, we don't kick them out. Usually they are eligible for welfare if they reach that point where they can't pay for their care. Welfare will pick them up at that point.

Senator MAGNUSON. Let us find out about that what these rules are.

Getting back to the appropriations, do you have anything to suggest there?

Mr. LEVIN. I would suggest, Senator, that the proposal——

Senator MAGNUSON. I can't give you much encouragement on construction.

Mr. LEVIN. I am not really concerned with construction.

Senator MAGNUSON. Or remodeling because even if we put it in, they freeze it down there.

Mr. LEVIN. Those sources are available from conventional sources as well, although we have utilized FHA very nicely. I am concerned that under the medicaid program under title 19, again the tightening up seems to be hitting nursing homes by reducing benefits after 60 days of care.

We well know that there are chronically ill people who need care beyond 60 days. The program as it is written, I understand reduces the

Federal fund by one-third after 60 days. It is terrible. That is the part that they need. We are talking about catastrophe.

Senator MAGNUSON. On medicaid I agree, we are going to take a look at it. There is another double problem moneywise, because there is the matching, the States have to match. Some of the States have fallen so far behind that they have to look at their appropriation, what we give them in medicaid, whereas medicare is coming out of a big trust fund.

The total amount that was appropriate compared to the amount of money that moves around in medicare is very small. It is administrative only. There, of course, they can change their rules and won't bother the trust fund at all on these cases. They wouldn't amount to anything.

The trust fund is now up in billions. Everybody pays in. But in medicaid I clearly agree with you it has been quite a mess, administrative-wise. No one seems to know downtown exactly what to do about it. We don't get too much help from downtown. Every time we have a meeting on an appropriation bill involving any part of HEW, we find a new person sitting across from us. They change so fast down there, from the Secretary on down.

Mr. LEVIN. The sorry thing about it, Senator, is that many of the States have merely taken State dollars that they formerly invested in welfare programs and they replaced them with title 19 dollars. Nothing was changed in terms of level of care, nothing was changed in terms of standards. It is just a matter of making it easy for the State to get Federal dollars. That wasn't the intent of title 19 either.

Senator MAGNUSON. We will get them up here and see what we can find out. I think this condition that you suggest here is something that just commonsense could change.

Mr. LEVIN. Just a matter of putting the number of days by a diagnosis. Certainly it is not a fault-proof system, but at least it gives someone an insurance I am going to be taken care of.

Senator MAGNUSON. Even if a fellow stays longer than he should, so what?

Mr. LEVIN. The average length of stay in our State is 30 days.

Senator MAGNUSON. So what? They ought to lean on the side of not denying somebody the care, even though they might find somebody that probably should not be there as long as he is. There is plenty of money in here to take care of that. And all this adds up to the fact that some of these people are hollering that they don't want health insurance.

If these sorts of things keep up, it will mean national health insurance. Then you will have more bureaucrats. Maybe that is the only answer. I don't know.

Mr. LEVIN. I have no aversion to bureaucrats provided they treat the programs they are to administer properly.

Senator MAGNUSON. One other part of your statement here I was going to ask a question on. I know the growth of nursing homes all over the country has been fantastic. Everybody finally became aware that it becomes a part of the whole health problem of the country and a very significant part. It is sort of paradoxical and ironical coupled with the fact, too, that the whole purpose of the health program is to keep people living longer.

As they live longer, the more we have the responsibility to see that that end of life is going to be taken care of. So, we are spending money, hundreds of millions of dollars, to do one thing and skimping on the other end.

Mr. LEVIN. You see, we live in a different culture here in many places where the elderly are revered and placed in homes. It is a little different.

Senator MAGNUSON. I remember the poorhouses.

Mr. LEVIN. Yes.

Senator MAGNUSON. Off the record.

(Discussion off the record.)

Senator MAGNUSON. On the record.

Do most States have about the same type of licensing, or does it differ?

Mr. LEVIN. It differs from State to State. I think that today there is a great similarity between the licensing agents, one State to the other differ very little.

Senator MAGNUSON. What about inspections? Is there lack of inspections?

Mr. LEVIN. I mentioned in this statement that I think all of us would be receptive to inspection, but the inspector generally says, "We want the highest standards." You ask him who is going to pay for it? He says, "I am not interested in who is going to pay for it. I am interested in inspecting."

We can't give \$50 worth of care if all we are getting is \$11.79, which in our State is top rate.

Senator MAGNUSON. How much?

Mr. LEVIN. \$11.79. You can't find a third-rate hotel room for \$11.79.

Senator MAGNUSON. What would the average be?

Mr. LEVIN. \$330 a month.

Senator MAGNUSON. Of course, a lot of people don't differentiate between retirement homes and nursing homes. They are two different concepts. Retirement homes, and we have several as you know, at home, they appeal to the ambulatory and you can go down and have a hot meal once a day.

Mr. LEVIN. Self-care.

Senator MAGNUSON. That sort of thing. A lot of them ultimately have to go to a nursing home.

Mr. LEVIN. Of course. That requires a lot of skilled care. You have to compete with hospitals and everybody else for your nurses and the like.

Senator MAGNUSON. Are there any homes large enough to have resident doctors?

Mr. LEVIN. Yes; there are.

Senator MAGNUSON. There are?

Mr. LEVIN. Yes, sir.

Senator MAGNUSON. Some of them just have visiting doctors.

Mr. LEVIN. Most of them have consulting physicians. Most of the patients are taken care of by their own attending physicians. All the patients admitted there are attended by their attending physicians.

Senator MAGNUSON. If he is available.

Mr. LEVIN. Yes; if he is not available, usually you have a house doctor who will take the call. It should be desirable to have a resident physician, but again who is going to pay for him?

Senator MAGNUSON. You would have to have a pretty large place.

Mr. LEVIN. Yes; it would have to be probably 200 beds and up.

Senator MAGNUSON. Yes; you would have to have a larger place. Would you say that our State has licensing laws tougher or more lenient than other States or about in the middle?

Mr. LEVIN. I would say that our State generally exceeds the standards of most States in terms of licensing requirements.

Senator MAGNUSON. Now you don't have any complaint about physicians, but you do suggest that there might be sometimes not as much cooperation as possible?

Mr. LEVIN. Yes, probably because the nursing home industry is looked upon much as a stepchild in the health care community. We had lunch today with a physician. He was talking about a comprehensive program of hospitals and doctors and everybody else but nursing homes.

I am sure he did not recognize that they do play an important role. I called him on that. He said, "Probably you are right, probably because we didn't have it foremost in our minds." The nursing homes are there.

My quarrel is not with the physician.

Senator MAGNUSON. Now if a person had private hospital insurance, they had full coverage for which there are policies, can he get a nursing home included in that?

Mr. LEVIN. There are some, but they are very, very limited.

Senator MAGNUSON. Does the premium go up pretty high?

Mr. LEVIN. I think it goes beyond that because it makes good sense to know that for every day of hospital care you might be afforded 2 days of nursing home coverage. It is a simple matter to do, but they are not doing it because no one is there to say you have to find alternatives.

Senator MAGNUSON. Most of them stop the day you leave the hospital?

Mr. LEVIN. That's right.

Senator MAGNUSON. Still there again there is a paradoxical thing, because we are trying to get people out of hospitals when they can be taken care of in extended care facilities or any other nonhospital facility.

Mr. LEVIN. Exactly, or home for that matter.

Senator MAGNUSON. You would think that they would be in favor of it, because if they have to stay in the hospital a little longer because they don't have insurance in a nursing home, it is going to cost them that much more.

Mr. LEVIN. You would think that would be the case.

Senator MAGNUSON. You would think they would have that in there because it would cost them less.

Mr. LEVIN. Exactly.

Senator MAGNUSON. To pay out.

Mr. LEVIN. But they don't, because it will take someone like yourself to tell them that they have to.

Senator MAGNUSON. We have tried a lot of things with insurance companies. I guess you are right, we will finally end up passing a law unless they come around themselves. You will find sometimes just the introduction of a law might do it when they know you are serious.

If you don't do it, they will go on with it. But I am glad to get your testimony. We just have to take a good long look at this medicaid thing. There are more complaints, more trouble, more confusion. There are no basic guidelines on eligibility or payments, as someone says, equitable one way or another. In other words, to sum it up, there must be a better way to do it than the way they are doing it.

Mr. LEVIN. That is a fair enough summary.

Senator MAGNUSON. Thank you very much. I am sorry to keep you waiting this morning.

Mr. LEVIN. Not at all. It is a pleasure.

**STATEMENT OF OLLY NEAL, LEE COUNTY COOPERATIVE CLINIC,
ARKANSAS COMPREHENSIVE HEALTH CENTERS, OFFICE OF
ECONOMIC OPPORTUNITY**

HEALTH MANPOWER

Senator MAGNUSON. We have Mr. Oly Neal.

Mr. NEAL. Senator Magnuson, first I don't presume to appear here to give you statistics on what the amount of money ought to be for the two programs I shall speak about. What I would like to do, though, is to give you a little bit of information that will influence you somehow in determining what is a reasonable amount of funding for the two areas I presume to speak about.

I recognize that I do not have the machinery to pull together the statistics and interpret them. I represent a segment of the Nation's population that is aptly described as "medically underdeveloped." I should add "economically and socially underdeveloped."

I am the administrator of a small health project in Lee County, Ark. Bordering on the Mississippi River, Lee County reflects the prevailing socioeconomic pattern of the Mississippi Delta. The black majority is politically, socially, and economically disenfranchised.

The large plantations, which until recently depended on an ample supply of labor to produce good cotton and soybean crops, are now largely mechanized. For the large part combines, herbicides and cotton pickers have replaced unskilled laborers. Chemicals and mechanization, with the help of a single seasonal employee, accomplish work which would have previously engaged 25. As a tractor driver, a Lee County resident can expect to work 94-102 days, earning \$1,000-\$1,500 per year.

Since in our society those things which assure the physical and mental well-being of individuals—adequate housing, health and sufficient food—are dependent on the ability to purchase, lack of income profoundly affects the life style and life expectancy of Lee County residents. Almost one-half of the housing units in our country are judged to be substandard according to the 1970 Census.

State Health Department statistics for 1968 show the infant mortality rate for Lee County to be 36.2 per thousand live births. 31.3 percent of the poverty population—and that represents 74 percent of our county population—earns less than \$1,000 per year allowing an average food-buying power capable of providing 15 percent of the USDA economy diet.

Another 26.4 percent earning between \$1,000 and \$1,999 per year can meet 46 percent of the USDA economy diet. The problems of our area can be attributed to the following:

1. Inability of the poor to purchase medical services at the local, regional and State levels. The lack of sufficient income services as a deterrent from seeking medical help not only at the local, but also at the more distant facilities where specialized care must be sought. In many cases, not because of a required fee, but because the poor cannot meet transportation costs necessary to underwrite the trip.

2. Inability of local health facilities to meet the health needs of the population because of understaffing and underfunding.

3. Inability or unwillingness by some health providers to sensitize themselves to the needs of poor people and consider their lives as sacred and worthy of maintenance as their middle- and upper-class counterparts. Segregated facilities and the fact that whites are waited on before blacks in some physicians' offices indicates to the majority of our area population that their value and worth are determined by their race, thus creating a psychological state hardly conducive to good health.

In 1969 with 14,000 of Lee County's 18,000 residents living in families earning less than \$3,000, undernutrition and its attendant proliferate illnesses are rampant. A doctor-to-resident ratio of 1:5,000 (all physicians white), a black-to-white population ratio of 3:2 and an extremely pronounced Southern tradition in effect does little to relieve the crisis.

In fact, the reverse is true for this combination causes the situation to become progressively worse. There was no major medical institution or group of liberal physicians who would come in to break this devastating cycle.

Lee County did not exude the glamor and attractiveness for liberals as did those communities who had experienced riots and racial upheaval. In 1970 Lee County, Ark., bore the Lee County Cooperative Clinic naturally, experiencing the most extreme forms of pains and convulsions attendant to natural childbirth. Local rejection by the power structure (all white) was total. Physicians were and are almost impossible to recruit. Any money sources are rapidly drying up.

But Lee County Cooperative Clinic can and must survive, for here is a facility born of absolute need and not to determine if a system of health care delivery will work; born of the womb of a plantation economy where there had been no prenatal care; and delivered by a daddy whose only experience had been driving the mules (later the tractors), chopping and picking the cotton for less (in most cases) than \$1,000 per year. Certainly this does not prepare one for the business obstetrics of running a health delivery system.

But Lee County Cooperative Clinic has survived because the need dictated no less. Lee County Cooperative Clinic does not have \$1 million. Lee County Cooperative Clinic does not have sufficient staffing and understanding to handle a million-dollar budget at this point.

OEO has shown it is inclined to fund comprehensive care centers at the \$1 million and above range, but she should have the funds and the flexibility to fund smaller sums based on their proven performance.

Now we have before us the Emergency Health Personnel Act of 1970. What shall we do with it? If this Nation of ours believes that

good health is a necessary ingredient for good citizenship and progress, then we must not allow this bill to be a pacifier to those who have raised loud voices and linger and die a life of unproductivity.

Can we make this act productive? If it is to be productive, we must provide the administering agency with the wherewithal and guidance to make it so.

1. The act provides for an advisory council of which four members shall be appointed from the general public representing the consumers of health care. Since it is estimated that areas with the most severe health manpower shortages are the rural poor and urban ghetto areas, it is absolutely necessary that these members be cognizant of, relevant to and responsive to the needs of these target communities. It is additionally necessary that these members be residents of such target communities.

Other members of the council must be selected based on their proven ability to relate to and effectively respond to the needs of the target communities. For it would be a farce to select a council that had neither the ability nor inclination to prod the administering agency so that it does not become a bureaucratic jungle such as many of our other Federal agencies have.

2. It must be clear that the affiliates of American medical and dental associations cannot be a determinant certifying element. These local societies, in many instances, have shown themselves to be patently racist and unresponsive to the needs of the poor and disadvantaged. We must realize that other health organizations—that is, National Medical Association affiliates—are frequently more cognizant of and more responsive to the needs of certain communities in spite of the fact that their affiliate may not be in the immediate area of concern. That section of the act must not become a block to the effective implementation of this proposal.

3. Sufficient support must be provided for practicing physicians placed by the Service. It must be recognized that most areas with a critical health manpower shortage are in that predicament because of a lack of both health manpower and financial resources. Therefore, it is inappropriate to place Service physicians without providing financial resources to cover some transportation and drug needs. It has been determined that in our county the greatest force prohibiting active and regular utilization of services available is the lack of transportation to enrollment and disbursement points. Our own survey has indicated that one of the major barriers to quick recuperation from minor illnesses is the inability of patients to afford prescribed drugs and for other treatments as advised.

4. Adequate funds must be provided to properly implement this program. In April 1970, CBS News Reporter George Harmon, speaking on a CBS special, "Health in America," said: "... a Federal budget that appropriates \$400 per person for defense is considered inflationary when it appropriates \$13 per person for health." Our national priorities must be reordered, to say the least.

Our Nation has frequently taken pride in the fact that it has the biggest and the best. After Russia successfully launched the first spacecraft, America flexed her muscles and in very short order caught and surpassed the Russians in the space race. There are many indications that one of the difficulties facing America in her attempt to get out

of Vietnam is her concern for her reputation of having never lost a war.

But the American mood is changing. We don't necessarily need to be the biggest. We don't need to necessarily win them all. What we need is a quality of life that will allow us to continue on the premise "that even the lowest can reach the highest."

The quality life for many of our citizens is far short of that point now and the health crisis can be seen as one of the major contributing factors rural poor and urban ghetto residents become less alarmed about the health of their infants and children because their own lives have conditioned them to live with pain and suffering. Poor health, malnutrition, and critical and threatening environments are the pools of genocide. Let us not nurse these tools, but let us abort them here and now.

I implore you to use your influence and legislative authority to make the intent of Emergency Health Personnel Act responsive and relevant to the needs and aspirations of those who face this very critical health crisis by making sufficient funds available to provide support services necessary for service physicians.

Thank you.

Senator MAGNUSON. I appreciate your testimony. I am sorry that a couple other Senators aren't here, but when you talk to the chairman about the emergency health personnel, that is my act. I will try to see that my baby gets fed the best I can. It has only been in existence now about 6 months.

Mr. NEAL. There have been no appropriations.

Senator MAGNUSON. We started with three in the supplemental, which wasn't enough, \$3 million. The budget has come up with 10. The authorization is \$20 million so I am hopeful to raise that figure if necessary. What really has happened is that down at NIH and the Public Health Service they haven't quite formulated all their plans yet. Therefore, the Budget said to them, as I understand it, "We will start you out with the 10. Then when you get your plans a little more formulated, we will be glad to recommend a supplemental."

What you point out is happening down in your county is just exactly what we were thinking about. I will tell you there is a great deal of enthusiasm among these younger people to go out and do this, get out into the rural areas just as much as in the ghettos and take the year or two in that setting to deliver health care.

What you say is so true. It is not only getting the person there or getting someone to go to Lee County and find out about it and work with you, but see that he has the tools, the auxiliaries, and OEO should—I don't know why they don't—take care of the transportation and the other things around the periphery.

Did you receive any money from OEO?

Mr. NEAL. Yes, sir; we have been funded for 2 fiscal years from OEO and are expecting some funds for the third fiscal year beginning September 1.

Senator MAGNUSON. How much did you get a year?

Mr. NEAL. The first year for a 6-month period, \$39,000. The second period, a 12-month period, was \$139,000. One of the problems is that we have used one of OEO's other services, VISTA, and because we are a rural area, it necessitates an extensive use of transportation. Everybody is out from the center itself.

OEO has recently restricted the mileage for volunteers to 500 miles a month. That may sound large for a person in Washington, but for Lee County where the average patient lives 10 miles from the center and with many of the patients living as much as 25, that is a restricted amount. OEO says to us, "Considering the size of your budget, only so much money can go into transportation, so we must restrict you at this point."

Then it has said, in addition, this year it is operating on what is properly described as a continuing resolution, so we could not be funded at a level higher, even though it had cut a higher activity.

Senator MAGNUSON. They have not even passed the OEO bill yet. It does not look like to me that it is going to be passed before we get all our appropriations marked up. It is over in the House.

VISTA is being phased out.

Mr. NEAL. We are aware of that.

Senator MAGNUSON. That is being frozen out.

Mr. NEAL. The problem we are having is that she does not seem to recognize that we are not similar to the other health centers.

Senator MAGNUSON. They have you fellows in between.

Mr. NEAL. Right. We are expected to survive on something that is not going to be available.

Senator MAGNUSON. We will see what we can do.

We will ask OEO about this. They can spend under the continuing resolution. As a matter of fact, I am not so sure that they can't spend more, because the budget amount, if they reauthorize it again, is not as much as they had last year. They can spend one-twelfth of it every month.

We don't know what to do on OEO because we don't have an authorization.

Mr. NEAL. My main interest has been because of my employment in the Lee County area. I have some exposure to the other areas in Arkansas and some of the other States, particularly in Mississippi and Alabama. The same problem exists, except in most instances the other areas have not managed to get off the ground as we have, which I think may be attributed to some good luck.

Senator MAGNUSON. Well, probably more because people like you took an interest. We will find out from OEO about this particular problem. You will have to be a little patient with the Emergency Health Service Act.

Mr. NEAL. Thank you very much.

STATEMENT OF C. ROBERT OGDEN, CHAIRMAN, ADVISORY COMMITTEE, WASHINGTON/ALASKA REGIONAL MEDICAL PROGRAM

REGIONAL MEDICAL PROGRAMS

Senator MAGNUSON. Now we have Dr. Bernstein, Mr. Ogden, and Dr. Reed.

Mr. OGDEN. Senator, there are three of us here to testify concerning the budget for regional medical programs for 1972.

I am C. Robert Ogden, chairman of the Washington/Alaska regional medical program's advisory committee.

Senator MAGNUSON. We will put all the statements in the record in full.

INTRODUCTION OF ASSOCIATES

Mr. OGDEN. We have shortened them up in order to save time. Sitting next to me is Dr. Arthur Bernstein from New Jersey, a practicing cardiologist who practices principally at Beth Israel Medical Center in Newark. He is on the edge of the Newark ghetto. He will talk about the activities of RMP in an urban ghetto setting.

To his right, Dr. Joseph Reed of West Virginia is engaged in family practice in a community of about 10,000 people in a rural area of an economically deprived part of the country. He is a consultant to a school health project sponsored by the West Virginia RMP. His project is Upshur County, and he will talk about the impact of regional medical programs in the rural setting.

When they have finished with their remarks, I will talk about RMP in large cities and remote areas.

Senator MAGNUSON. We are glad to have you all here.

STATEMENT OF ARTHUR BERNSTEIN, NEW JERSEY REGIONAL MEDICAL PROGRAM

REGIONAL MEDICAL PROGRAMS

Senator MAGNUSON. We will now hear from Dr. Bernstein.

Dr. BERNSTEIN. Mr. Chairman, I will make my remarks brief at this point. You have my statement which contains most of what I will say, but I would like to emphasize certain points that I believe are worth emphasizing, as regional medical programs are concerned in New Jersey.

Senator MAGNUSON. Doctor, before you get started, so that the record is clear, because we don't deal so much in philosophy here as we do in dollars, although we would like to deal in philosophy.

For the purpose of the record, the RMP appropriations last year, or appropriations that we recommended, were \$111 million. The budget has come up here with \$52.7 million. But of the \$111 million, \$44.5 million was impounded. That is pretty nearly a 50-percent cut.

Now they claim that the reason they asked for \$52 million instead of even last year's amount, which I don't think was sufficient because we are just getting going with these programs, the reason they asked for \$52 million is that they are going to release the \$44.5 million, and that added to the \$52 million would be enough.

Mr. OGDEN. I will have some remarks to make about that.

Senator MAGNUSON. I just wanted the record to be clear on the figure.

Mr. OGDEN. I appreciate that.

Senator MAGNUSON. Go ahead.

Dr. BERNSTEIN. The figure Mr. Ogden will discuss with you.

I would like to mention a few of the things that can be done with the regional medical program, and why the funds should be increased despite what you have just said, because I think we need more than that. I think your original idea of \$111 million is inadequate.

First of all, I think this is a good way to lower the cost of medical care. In New Jersey, this is a big problem today. Everybody talks about it. Here is the way to do it.

We have, and I have presented to you for the record, some recommendations made by our regional medical program, in which we have

tried to show how we can recognize and cut down the cost of expensive medical facilities such as cardiovascular facilities. And instead of having one in every hospital, each of which cost anywhere from a half to \$3 or \$4 million, we have tried to get them together and have them combine their facilities.

We have had a pacemaker program. Every hospital wants to measure the working of a pacemaker, because if you don't measure that, you have 90 percent of these pacemaker patients come in as emergencies when their pacemakers fail. We found that if you study them at monthly or 3-month intervals, we can cut those down so that only 10 percent become emergency.

This, too, makes a big difference for the patient and cuts down cost. By computerizing them and having a center in one hospital, we can use computers throughout the State. New Jersey is a long, narrow State. You can send the signal from the pacemaker anywhere in the State to the central computer; and instead of having a computer in every hospital, which would raise costs tremendously, we have been able to save a tremendous amount of money by having just the station, the sending unit, in one area, the central unit at another, and in that way we cut down costs. This is one example of what regional medical programs can do.

Renal programs, we have a great deal of experience with, and we have set up renal centers for that and set up standards for this. This is the first area. I could expand on that but I won't. We have improved medical knowledge. We have set up now in one of our medical schools—as you know, the medical schools in New Jersey are rather new—so that this program has been really started as a grass-roots project by the physicians of the State themselves, and the medical schools have been brought in and we are working with them.

We are now setting up an institute for continuing physician education at the colleges, and we will work with the directors of medical education at all of the hospitals so that in this way we can improve the bringing of medical care throughout the State. This is one of the purposes of the regional medical program.

If we have enough money, we can do a much better job of that.

We also have set up a taped message where, for instance, in an emergency when a physician at 3 a.m. needs some knowledge on a specific subject, he can use the telephone to call into a central number and have a 5-minute tape which will tell him what to do, say, in the case of acute heart failure. So that if he is stuck somewhere out in the country, he can get immediate help.

This, too, improves medical care and improves care for the individual patient, which I think is vital. We have just had to cut that program down so that we can only run it in the daytime. We can't run it at night any more because of this reduced funding. We just have to cut it down, we can't afford it any longer, which I think is penny wise and pound foolish.

Consumer input: This, I think, is the most important part. I hate to call patients consumers. It seems like a degrading term, but really this has been the golden opportunity to bring together physicians, patients, hospital administrators, nursing home administrators, if you want, and everybody else into a unit where they can talk to one another, the medical schools; and in our regional advisory group we have

representatives of all these areas, so that people talk together, and for the first time we can hear what the patient has to say.

What are his problems? The hospital administrators, what are their problems, the nursing home problems? We can get them together in one place. This is vital, too. This is one of the other things that the regional medical program has done, that has been of great value.

I have talked about improved patient care. I have presented to you a stroke program. For the first time, we have been able to set up a stroke program.

Senator MAGNUSON. Let me ask you this. What does your region consist of?

Dr. BERNSTEIN. New Jersey, the entire State. At one time, we were about to be dismembered so that Delaware Valley was going to grab the lower half of the State and New York, the upper. New Jersey would have been disemboweled.

Senator MAGNUSON. When we talk about region, there are places where there are multistate regions. In our part of the country, it is Alaska and Washington.

Dr. BERNSTEIN. This is the State of New Jersey.

Then improved patient care. I talked about this stroke program. This, too, takes money. We have started this so that the poor stroke patient who has been sorrowfully neglected really in all of our medical areas and medical care, will now for the first time receive proper care.

Also we have a cancer program for the patient with cancer. As you well know from your own interest, the cancer patient today has many modalities of surgery, radiation, and chemotherapy. We have set up programs in which we now have cancer meetings in every hospital in which every patient is presented to the tumor board, where the best therapy for that patient is decided. This, too, costs money, because it costs money to have separate panels.

Senator MAGNUSON. Thousands. That is just one example. Then the the regional centers in their desire—sometimes there is not enough money when you get down to that feature of it—for the ambulatory features of a regional medical program. Just think what you could do if the regional medical area could finally go out and see that every woman had a pap test. You could do that from a truck, could you not?

Dr. BERNSTEIN. Yes; you could.

Senator MAGNUSON. You could save thousands of lives.

Dr. BERNSTEIN. That is correct.

Senator MAGNUSON. Thousands. That is just one example. Then the stroke problem, the coronary care units in the areas, I suppose they have one in Spokane, we have the fire department trying to keep one alive in Seattle. I had to just fight to get \$50,000 after the city had contributed, and the doctors are contributing their time.

Even there a couple hundred have been saved in a year's operation.

Mr. OGDEN. Fortunately now by public subscription there has been \$200,000 raised to continue that.

Senator MAGNUSON. When you get out in the rural areas, more sparsely populated areas of the United States—

Dr. BERNSTEIN. That is correct. Many of these programs can be used in rural areas. New Jersey has some. We are beginning to work out some of these programs in that area. We have been particularly interested in the ghetto area. That is the last part of my presentation.

We, for instance, wanted to know what is really wrong. Is there a health need in the ghetto? We all talk about it, but nobody has ever really done any careful study.

We took one of the Newark model city areas and examined 884 persons. I might state we interviewed a thousand and asked them to come. We got 884. This shows the interest of the patients in the ghetto area in their own health, if you give them a chance.

We did this with a mobile unit. That is exactly the way we did it because they are suspicious of the clinic. They don't have doctors as it turns out. So we brought the facilities to them. We tested only four things. We did an electrocardiogram. We took a chest X-ray, took their blood pressure, and listened to their hearts for murmurs or irregularities.

That is all we did. In that simple screening one-third of those examined had one or more abnormalities, believe it or not. Under the age of 20 one-quarter of them had one or more abnormalities. So there is a tremendous need for health care in the ghetto that has never been recognized.

Then the followup of getting physicians for them and so on, I won't take your time now. But these are the things that need funding and need money in order to do it.

We wanted to fund another program of that type and we couldn't because we had no money. Our funds were cut from \$3 million to \$1.25 million this year. We were approved for \$3 million and only got \$1.25 million. So that in the final analysis we wound up with 10 programs eliminated, one of them being a hemodialysis training program. In other words, we keep talking about training doctors to do these new things. This had to be cut out.

A cancer course for nurses. It turns out although we train nurses for cardiac care, we have not trained them to take care of colostomies. This had to be given up. These are two examples of programs.

Comprehensive health service in the ghetto was cut down. We had 12 programs that had to be reduced in their funding. We had to cut out, I am sorry to say, a cancer screening and education program, the very type of thing that we wanted to do where we were going to do pap smears in women at various places. That had to be cut out.

Then 12 were at reduced levels. In order not to take any more of your valuable time, I think this will give you some idea how in the State where the medical schools were not leaders, the physicians of the State themselves along with the consumers, the patients, the hospital administrators, got together and tried to prepare a program that would help and benefit the health of that State.

Senator MAGNUSON. I think what I say is typical throughout the United States or throughout the areas that established it.

I want to say again this is one program, it seems to me, that out of all the places possible we ought not to allow that cut. We don't want to cut them anyplace if we can help it, but this one is just starting to show real promise.

(The prepared statement follows:)

I am Arthur Bernstein, a practicing physician, and I have been intimately connected with the New Jersey Regional Medical Program since its inception in 1967 as an officer and as the official representative of the New Jersey Heart Association on the Regional Advisory Group, the policy-making body of the New Jersey RMP.

I am deeply concerned with the continued viability of Regional Medical Programs as an important link between governmental programs and the providers of medical care in the state of New Jersey.

I am also concerned that a reduction in federal funds available for Regional Medical Programs will destroy the effectiveness of the voluntary associations that have been established among physicians, hospitals and medical schools under this program. Over the past four years, these voluntary relationships have produced significant gains in the improvement of the quality of patient care, the more effective utilization of existing medical facilities, the moderation of the cost of care through the regionalization of services, and the continuing education of physicians and allied health personnel. If I may, I would like to describe the effect the RMP has had on health in my state.

The medical schools of New Jersey are just five years old and are still developing as contributors to the total health care system in the state. It is only recently that the College of Medicine and Dentistry of New Jersey was established with a four-year branch in Newark and a two-year branch in Piscataway on the campus of Rutgers University. Consequently, until recently medical leadership in the state has been a grass roots movement of interested private practicing physicians working

through their community hospitals and professional societies and the voluntary health agencies in the categorical diseases. In fact, the initial planning grant application for the establishment of a Regional Medical Program in New Jersey was strongly backed by physician leaders of the State Medical Society, the State Society of Osteopathic Physicians and Surgeons, the Academy of Medicine and the Heart and Cancer Societies, as well as the State Health Department, the Hospital Association and the fledgling medical schools. Immediately upon receiving the planning award, over 100 physicians formed themselves into task forces on heart and related diseases, cancer, stroke and continuing education. These task forces met monthly over a period of six months in community hospitals throughout the state and identified 22 initial project proposals to meet their needs for implementing the latest advances in medical science through educational programs for doctors and nurses in coronary care, cineangiography and hemodialysis, demonstrations of multi-specialty team conferences for the management of cancer patients and hospital networks for the improvement of care to patients with stroke. Although the Regional Advisory Group selected and approved only nine of these, private practicing physicians continue to be the principal source of ideas for bringing greater quality of service and more accessible services to patients. Private physicians in their community hospitals play a prominent role as directors of operational projects as in the case of current activities in organizing multi-discipline treatment of cancer, computerized pacemaker evaluation, computerized radiotherapy dosimetry, regional stroke intensive care services, rheumatic fever prevention, hospital-based family health care service and upgrading of licensed practical nurses to serve in coronary care units.

The permanent councils of the New Jersey Regional Medical Program are made up primarily of practicing physicians with participation from medical school faculty, personnel of state agencies, allied health personnel, hospital administrators and the consumers of services. These councils voluntarily serve to review all project applications for their technical competence and applicability to the current organization of medical care. In addition, and perhaps most importantly, these councils voluntarily have established guidelines for specialized care services and have offered these guidelines to their medical peers for implementation on a voluntary basis. Two of these guidelines - one for cardiovascular surgical units and one for hemodialysis centers - have been formally adopted by the state Comprehensive Health Planning Agency. On several occasions the area-wide (b) comprehensive health planning agencies have sought the expert consultation and advice of our physician councils to assist them in planning new facilities and services. Thus the Regional Medical Program provides a "broker role" by involving the private physician voluntarily in the government's health planning efforts. This relationship is unprecedented at least in the state of New Jersey and is evidence that physicians are not only willing to accept change but will participate in the mechanism of change. They support the concept of regionalization of scarce facilities and personnel in order to avoid the escalation of the cost of medical care - a great step forward.

Over the years patients and their families have read about the great advances in medical science achieved at the National Institutes of Health and in the research hospitals of the nation's medical schools, and they have complained to their physicians about how long it takes for these

discoveries to reach them in the office of their family physician or at their bedside in their community hospital. Or putting it another way, sharing the dividends of billions of tax dollars spent on medical research has become a consumer demand. The reduction of the time lag and the equitable distribution of medical advances has become one of the primary missions of the Regional Medical Program.

In our very first year the New Jersey Regional Medical Program went to the community to seek its participation in identifying needs in patient care. Regional workshops were held in five areas of the state to which were invited physicians, consumers, administrators and health officials. They were asked to give their opinion of what their community required in facilities, services and manpower in order to bring better patient care to all segments of the community. These ideas were incorporated into the development of our projects.

A critical shortage of trained nurses to staff coronary care units throughout the state resulted in the development of three regional training centers for intensive training in coronary care nursing. A near absence of a cadre of personnel to staff newly organized hemodialysis services for patients with end-stage kidney disease resulted in a regional training program for nurses and technicians and orientation programs for physicians. These two programs enabled many hospitals throughout the state to open new service units for patients who previously might have left the state for care that they could not obtain at home, or more often were committed to premature deaths.

A critical inadequacy in sophisticated services to victims of stroke was expressed in the regional workshops. In fact, diagnostic services for the prevention of stroke exist in only rare instances. This led to

the development of a state-wide plan, regional centers for care of the acute stroke victim and for the diagnosis of pre-stroke syndromes with preventive therapy. The first of these centers has just been activated in a six-hospital, two-county area of the state.

Another method of responding to patient needs was to identify hospitals where staff physicians through their own initiative and expertise had developed highly sophisticated up-to-date diagnostic or treatment facilities and to extend the service area of these physicians through communication and computer linkages to other hospitals, thus making their expertise available to an ever-widening number of patients. An example of this is our computerized pacemaker evaluation project which links the Pacemaker Evaluation Clinic of Newark Beth Israel Medical Center to ten other hospitals scattered throughout the state, extending pacemaker evaluation services from Beth Israel's own caseload of 200 to a total caseload of 1,000 patients throughout the state. This not only brings sophisticated technology to all areas of the state, even the most rural, but also prevents costly duplication.

The strong interest on the part of attending physicians on the staff of Middlesex General Hospital in New Brunswick to bring medical services to the urban disadvantaged population has resulted in the establishment of a hospital-based family health care unit which will serve as a model for the state as one method for meeting the health care needs of the medically disadvantaged. The family care unit will bring comprehensive care to 4,000 medically indigent persons, including those under Medicaid who at the present time have no family physician or who receive episodic care in the emergency room or outpatient clinics. This demonstration will be followed closely by all of the hospitals in our state

whose service areas encompass ghetto neighborhoods so that the lessons learned may be extended to the 150,000 ghetto residents in the state.

Approximately 5% or 41,000 of hospital admissions in the state are for cancer. Because of the complex nature of this disease, the various treatment modalities to be selected and the honest differences of opinion among physicians in the management of this disease as well as the scarcity of experienced oncologists, it is recommended by the American College of Surgeons that each cancer case be reviewed by a conference of the several physician specialists whose expertise is called upon in the course of treatment - the internist, the surgeon, the radiation therapist, the chemotherapist and others as required - for the review of treatment prescribed and an assessment of the patient's progress. Through the Tumor Conference Board project of the New Jersey Regional Medical Program, 175,000 patients per year have been brought under this multi-specialty review. This is an excellent example of how the quality of medical care can be improved and made less costly through the elimination of needless therapy.

An established goal of the NJRMP is to increase the availability and accessibility of services to the urban disadvantaged. In order to plan these services on a regional basis one has to have a fairly clear picture of the amount of need that exists, specifically: How many disadvantaged persons do not seek medical attention? What is the incidence of specific medical conditions, such as hypertension, cardiovascular disease, stroke, tuberculosis and other pulmonary conditions? What are the socioeconomic factors in this population that must be considered in the design of new and adequate services? In order to obtain specific answers to these questions we took a mobile examination facility into the model neighborhood

of the Newark Model City area and examined 884 persons by administering an electrocardiogram, chest X-ray, blood pressure test and chest auscultation. The abnormal findings were surprisingly high: One-third of those examined had one or more abnormality, many of which were previously unknown; two-thirds had no regular place of medical care; and one-fourth of the young people, those under 20, screened had one or more abnormality. These results challenged us to work with community hospitals in the development of more comprehensive and more accessible ambulatory care services, such as the family health care unit at Middlesex General Hospital which will include health education and preventive medicine as a part of the routine care. The survey also provided some guidelines for the determination of health priority needs for the Model Cities programs.

As early as December, 1967 the executive committee of the New Jersey Regional Medical Program's Regional Advisory Group recorded its concern for provision of comprehensive care for all the people of New Jersey. The depth of their concern was proven the following month when the chairman selected a special committee to study a request from the New Jersey Department of Community Affairs seeking funding for health planners in the federally-designated Model Cities of Newark, Hoboken and Trenton. The decision was made to support the request and, at the same time, a 20-member Urban Health Task Force was created with strong representation from consumer and minority groups as well as physicians and health professionals.

By the summer of 1968 the three positions had been filled and planning activities had begun. The urban health coordinators, working with elected citizens' health panels, had identified the priorities for health services and developed an operational framework for action in each of the

cities by April, 1969. They also had helped plan the health component of Parts I, II and III of the Model Cities applications.

The assignment of full-time urban health coordinators (funded completely by the NJRMP) to Newark, Hoboken and Trenton was considered successful and a supplemental application to expand the program to New Jersey's other federally-designated Model Cities was submitted to the Division of Regional Medical Programs in May, 1969. The following September the project was approved pending funding. Planning activities began immediately so that when funds were released in April, 1970 urban health coordinators were assigned to six additional cities. A conference for representatives of the nine Model Cities was held and the Urban Health Task Force was expanded to include a representative from each Model City.

The Urban Health Component received continued funding through the New Jersey Regional Medical Program's 1971-1972 grant award in April, 1971. Since then the component has expanded again. The NJRMP signed a contract with the New Jersey Department of Community Affairs in June to provide health planning assistance to the 13 cities in the state's seven Community Development Programs. The 13 include Asbury Park, Bridgeton, Camden, Cape May, Long Branch, Orange and the North Hudson Council of Mayors, comprised of Guttenberg, Kearny, North Bergen, Secaucus, Union City, Weehawken and West New York. As in the federally-designated Model Cities, urban health coordinators will plan and organize facilities and manpower resources to increase the effectiveness of local health care delivery systems. This will be achieved by involving citizens' panels, defining priorities and

securing operational grants through existing federally- and state-supported programs.

It is well known that the educational programs available to physicians for their continuing education are numerous, duplicative and generally uncoordinated. In New Jersey we have attempted to bring order out of this chaos by establishing strong relationships with hospital directors of medical education. These full- or part-time hospital staff members are generally responsible for organizing programs for the attending staff in addition to their responsibilities for interns and residents. Working with their organization in New Jersey, we inventoried current hospital programs and educational resources and developed a plan for a state-wide Institute of Continuing Physician Education within the organizational framework of the College of Medicine and Dentistry of New Jersey. This institute, to be launched this year, will bring "town" and "gown" together by involving the faculty of the medical school in a coordinated and carefully planned series of educational programs related to problems of patient care with the hospital directors of medical education serving as liaison. Those hospitals which are too small or have inadequate resources to support their own director of medical education will be linked to larger hospitals in a sharing program. At a state-wide meeting to announce this program, enthusiastic response was received from private physicians as well as from hospital trustees and administrators who saw economies in the program as well as improved effectiveness.

This institute will also enable us to integrate all of the new educational programs developed in our operational projects, particularly seminars in cancer chemotherapy and surgery and our cancer grand rounds,

a series of programs providing multi-specialty case conferences. These seminars and conferences were attended by a total of 3,500 physicians during the past 12 months.

We are joining the medical libraries of the state's 98 community hospitals in an information network linked to the National Library of Medicine to expand the delivery of current medical knowledge to the physician in his own hospital. An integral part of this network will be a telephone access library of recorded tapes on medical subjects, each prepared by a practicing physician in this state on a voluntary basis. Since its inception over 8,000 calls have been made by physicians for these six-minute messages on heart disease, cancer, stroke and other subjects including medical emergencies and drug information.

All of these programs have been developed under the guidance and continuing critical review of the Regional Advisory Group, the New Jersey Regional Medical Program's policy-making and review body which includes practicing physicians, hospital administrators, representatives of the state medical college, government health agencies, voluntary health agencies, medical societies, the state Comprehensive Health Planning (a) and (b) Agencies and consumers. The present composition of the RAG includes five black members, one of whom is a ghetto resident. Another consumer representative is a labor union official active in minority community affairs representing the interests of black people.

The RAG maintains a close surveillance of and interest in all the activities of NJRMP. At each regular meeting, they receive minutes, a full report of the headquarters and RMP-operated project budgets, a detailed report of staff activities and reports from all the standing coun-

cils and committees. They discuss all the operational projects during the planning stage and completely review each operational project application before formal action is taken. Each project is reviewed by the appropriate council and a report submitted to the RAG before the project is presented.

The RAG is the major decision-making body of NJRMP. They meet monthly to establish program priorities, review and approve all major expenditures and approve all operational project requests. They review ongoing operations, staff activities and the activities of the councils and task forces. They have established a working relationship with one another and have developed three major operational goals of the program. As each new activity is reviewed, its relationship to these goals is considered. Rather than reviewing individual proposals on their own merits, the RAG considers each in the context of these three major goals:

1. Increasing the accessibility, quality and quantity of health care for the urban disadvantaged.
2. Increasing the efficiency and effectiveness of existing services and facilities.
3. Increasing the skills and knowledge of health practitioners.

The RAG represents a wide range of viewpoints including those of the providers of care as well as those of disadvantaged consumers. Program issues are hammered out in frank, open discussions with all interests expressed and the necessary compromises taking place in order to initiate new program activities. Each has learned the importance of understanding and listening to the other and recognizing valid arguments for each side of an issue. Despite the wide differences and the viable nature of the

issues, compromise has been reached and the program has moved forward with the application for a considerable number of new operational projects.

NJRMP region includes the entire state and an excellent cooperative relationship has been established with Comprehensive Health Planning. Four RAG members also are members of the state-wide planning council for the Comprehensive Health Planning (a) Agency. Staff members of each agency attend meetings of the other.

Although the RAG membership is limited, as many members as necessary or desirable may be appointed to the councils and task forces. For example, the Council on Heart and Related Diseases has ten subcommittees with a total membership of 100. Each subcommittee is concerned with a specialized area of heart and related diseases. Thus, all of the major medical interests concerned with these disease entities are involved in RMP activities. In another instance, the Urban Health Task Force was originally composed of health officials, providers and others interested in improving health care services for the disadvantaged population. Recently, the Task Force has expanded its membership to include one ghetto consumer from each of the nine Model Cities citizens' review groups. The only stipulation on any council is that one member be a member of the RAG in order to achieve continuity of policy. The RAG member is responsible for reporting council activities to the RAG at its regular meetings.

From these planning and operational activities, the councils have developed guidelines in several areas. These include:

1. Recommendations for cardiovascular surgical units
2. Recommendations for coronary cineangiography units
3. Recommendations for coronary care units

4. Manual on Stroke
5. Recommendations for cancer therapy on a regional basis
6. Cardiovascular Drug Manual

Four of these have been published; the remainder are in preparation. These guidelines aid the orderly and economical development of facilities and establish high standards of medical care.

In the project review process, the concept of the project is reported to the appropriate council or task force for its appraisal. Following approval of the concept, it is then discussed by the RAG and approved for project development. After staff development, when the project is written, it is reviewed by the appropriate council and referred to the RAG with the council's recommendations. As required by law, the final approval of the project rests with the majority vote of the RAG before the project is submitted to RMPS for funding. Projects affecting the two established 314(b) agencies are referred to their planning committees for review following approval by the RAG.

The NJRMP originally received federal approval for 22 programs totalling \$2.9 million for fiscal 1971. According to Harold Margulies, M.D., director, Regional Medical Programs Service, "Reviewers were impressed with the progress of the Region (NJRMP) to date and concurred that the Region is ready to assume increased responsibility..." He went on to say that "Notable strengths of the Region include a well trained, diversified, capably directed Core (Headquarters) Staff, a Regional Advisory Group, task forces and councils which are representative of and sensitive to the needs of the Region, including health problems of urban-ghetto areas of the State." However, the reallocation of funds authorized by Congress for all 56 Regional Medical Programs in turn reduced the New Jersey

award to \$1,225,000. This forced the New Jersey Regional Medical Program to eliminate ten approved programs and severely curtail others.

The following programs were eliminated:

REGIONAL TRAINING CENTER FOR CARDIAC NURSING (#3R) - To meet the current shortage of skilled nurses to staff intensive care units throughout the state, Newark Beth Israel Medical Center would train 80 nurses in four courses in one year. Approved: \$66,252.

HEMODIALYSIS TRAINING PROGRAM (#9) - Trained staff is needed for the growing number of hospitals providing the life-saving technique of hemodialysis to patients with kidney disease. This program would train 18 personnel for hospital units and conduct seminars for current staff, patients and families on new developments in the treatment of kidney problems, home care and organ transplantation. Approved: \$49,056.

CANCER CARE COURSE FOR NURSES (#11) - To improve the care of cancer patients in hospitals, long-term care institutions and at home, 50 nurses would be trained in the latest skills and procedures for managing patients following surgery, chemotherapy and radiation therapy as well as in special skills for the terminal case. Bloomfield College would serve as the educational center. Approved: \$67,343.

REGIONAL BLOOD FREEZING PROJECT (#17) - Many serious medical conditions require blood that is guaranteed safe from life-threatening transfusion reactions. Others need special types or fractions of whole blood that are not normally available in large amounts from conventional blood banks. The Essex County Blood Bank has developed a program for the collection and long-term storage of rare and unusual bloods utilizing liquid nitrogen as a freezing mechanism. This project would expand the Essex

County Blood Bank to serve the entire state in a cooperative effort with other established regional blood banks. Approved: \$63,720.

MODEL CITIES COMMUNITY HEALTH IMPROVEMENT PROGRAM (#18) - Over a five-year period, consumer health planning committees in the Model Cities would be provided with a mobile examination facility and staff with referral service and provision for initial medical care payment to determine actual medical care needs of ghetto residents. Appropriate improvements could then be made in the health care delivery system. New services would be established based upon current data, with physicians, hospital administrators and community health agencies participating in the recommendations for improving health services to the poor. Approved: \$859,737.

COMPREHENSIVE FAMILY HEALTH SERVICE - Newark Beth Israel Medical Center (#19) - To help fill the physician deficit in Newark, a comprehensive family oriented health service for 15,000 persons in the immediate neighborhood of the hospital would be established under cooperative funding. A consumer advisory council would participate in policy and procedure development. Full-time medical and allied staff would serve in a comfortable, dignified setting on an appointment basis. Outreach services for counseling are planned. Approved: \$1,452,370.

NURSING EDUCATION FOR LEADERSHIP AND CLINICAL TEACHING (#21) - The Rutgers Continuing Education Department would prepare 200 selected, clinically experienced nurses for teaching responsibilities in their own hospitals. Special areas of training would include cardiovascular-cardiopulmonary nursing, diabetes, liver disease, renal disease, stroke, drug addiction and alcoholism. Approved: \$49,974.

CANCER SCREENING AND EDUCATION PROGRAM (#23) - In a county-wide three-year demonstration program serving a population of 500,000 in Middlesex County, nurses from all six hospitals in the area would be trained to administer Pap smears to all women 18 years and older. In addition, the Pap test would be promoted in home care services, industry, health services for the disadvantaged and private physicians' offices. A public education program would encourage participation, and a computerized data system would analyze reports and promote follow-up treatment. Approved: \$216,067.

TRAINING COURSE FOR NEW JERSEY TUMOR REGISTRY SECRETARIES (#24) - Hospital staff who maintain essential data on hospitalized and discharged patients under treatment for cancer would be trained to assist physicians in a follow-up of these patients by maintaining complete and accurate records, preparing reports and summaries of each case, and analyzing the caseload of each hospital so that improvements in the management of patients could be made. Standards of the American College of Surgeons would be adopted and close relationship to Memorial Hospital in New York City maintained. Approved: \$20,092.

PRIMARY RHEUMATIC HEART DISEASE (#25) - Throat cultures would be taken from public school children in New Brunswick following absences because of sore throat and all positives would be referred to their private physicians for follow-up prophylactic treatment. A cooperative project was planned including the College of Medicine and Dentistry of New Jersey at Piscataway, Middlesex General Hospital, St. Peter's Hospital, the Visiting Nurse Association, County Medical Society and Heart Association, and the State Department of Health. Approved: \$66,517.

The following are current programs operating at reduced levels of funding:

EXTERNAL CARDIOPULMONARY RESUSCITATION PROGRAM (#4) - New Jersey Regional Medical Program is granting funds to the New Jersey Heart Association to organize training programs throughout the state in this technique. Personnel of hospitals, first aid and rescue squads, police and fire departments and other emergency agencies are receiving basic and refresher training in emergency life-saving procedures. More than 10,000 people have already been trained. Approved: \$63,894. Reduced to: \$23,232.

EVALUATION OF THE STATUS OF IMPLANTED PACEMAKERS (#6) - The diagnostic facilities of the NJRMP-sponsored Pacemaker Evaluation Clinic at Newark Beth Israel Medical Center are being extended by teletype linkage to ten hospitals. This network will provide computerized evaluation to at least 500 additional patients by the end of the first year without duplication of laboratory personnel and equipment, and will serve the population of the entire state. The network will eliminate 90% of all emergency operations to replace failing pacemakers and will result in a saving of lives as well as of hospital days and beds. Emergency procedures are twice the cost and require considerably longer hospitalization than planned procedures. The psychological effect of the continual need for emergency procedures cannot be measured, but its elimination is an obvious benefit to the patient and his family. Approved: \$79,893. Reduced to: \$56,921.

ESTABLISHMENT OF TUMOR CONFERENCE BOARDS (#7) - New Jersey Regional Medical Program has established a program in 28 hospitals of multi-specialty review of cancer cases as recommended by the American College

of Surgeons. More than 10,000 patients each year are brought under team review of the status of their disease, treatment modes and rehabilitation plan. More than 3,500 practicing physicians throughout the state have attended NJRMP post-graduate courses in Cancer Chemotherapy, Diagnosis, Prevention and Treatment. Approved: \$162,578. Reduced to: \$52,907.

URBAN HEALTH COMPONENT (#12) - This project, now in its second year of operation, serves a population of 200,000 disadvantaged residents in the nine federally-designated Model Cities Programs as well as 300,000 residents of 13 recently-approved State Community Development Cities. Each city, at the invitation of the mayor, is provided with NJRMP planning staff to plan and organize facilities and manpower resources to increase the effectiveness of local health care delivery systems. To date, the staff has secured more than \$6 million from sources other than Regional Medical Programs to fund health programs in these cities. Approved: \$235,873. Reduced to: \$168,668.

HOSPITAL-BASED FAMILY HEALTH CARE SERVICE (#13) - New Jersey Regional Medical Program has developed a demonstration program of comprehensive health care especially directed to the disadvantaged and others without established sources of medical care. Family health care teams at Middlesex General Hospital in New Brunswick will serve a patient population of 4,000 stressing prevention as well as treatment. Medicaid and Medicare beneficiaries are included. This program is a prototype for other community hospitals in the state which have a responsibility to provide improved health services to the poor. Approved: \$235,066. Reduced to: \$127,000.

REGIONAL PROGRAM FOR CONTINUING PHYSICIAN EDUCATION (#14) - New

Jersey Regional Medical Program is organizing and staffing a new Institute of Continuing Education for Physicians within the College of Medicine and Dentistry of New Jersey. This Institute, utilizing all of the faculties of the College, will work with Directors of Medical Education in the state's 125 hospitals to provide a coordinated program of education for physicians in practice. Approved: \$77,735. Reduced to: \$45,236.

COMPREHENSIVE STROKE CARE AND EDUCATION PROGRAM (#15) - Under NJRMP

funding, six hospitals in Monmouth and Ocean Counties with 1,375 combined annual stroke admissions will cooperate to improve care for stroke victims. A medical team will provide consultation services to private physicians in prevention, diagnosis and treatment of acute stroke. A centralized teaching program for hospital and community nurses will upgrade the knowledge and practice of nurses in bedside care and rehabilitation. Approved: \$153,973. Reduced to: \$25,800.

PROFESSIONAL AND PATIENT STROKE EDUCATION PROGRAM (#16) - New Jersey

Regional Medical Program will produce video tape case histories for the education of physicians, nurses, patients and families. Ten Bergen County hospitals serving a population of 1 million will participate in this program to upgrade the care of stroke patients. Approved: \$79,152. Reduced to: \$49,868.

DECENTRALIZED R.N., L.P.N. CARDIAC NURSE TRAINING (#20) - Licensed

Practical Nurses will be trained in specific aspects of coronary care nursing. Standards for training and utilization of trained Licensed Practical Nurses in coronary care units will be established, and Nursing

Supervisors will be shown how to conduct similar training programs in their own hospitals. Approved: \$91,258. Reduced to: \$31,108.

REGIONAL RADIATION AUTOMATED DOSIMETRY PROJECT (#22) - The New Jersey Regional Medical Program will link 22 New Jersey hospitals to Memorial Hospital for Cancer and Allied Diseases in New York City in an electronic network to provide radiation therapy consultation. The computer program at Memorial Hospital will determine precise, effective and safe radiation doses for 10,000 New Jersey cancer patients. Approved: \$197,831. Reduced to: \$55,852.

NEW JERSEY MEDICAL LIBRARY AND INFORMATION NETWORK (#26) - The latest medical knowledge is being made available to New Jersey physicians by the NJRMP's Medical Tapes by Telephone program. A library of 266 tapes provides medical information useful to physicians in their daily practice. More than 10,000 requests for tapes have been received over a two-year period. This is the first step in a projected program to establish an information network linking the medical libraries of community hospitals in the state with the library of the College of Medicine and Dentistry of New Jersey and to join this network with national medical library resources. Approved: \$132,507. Reduced to: \$52,740.

NEW JERSEY CONSUMER HEALTH RADIO PROGRAM SERIES (#27) - The College of Medicine and Dentistry of New Jersey at Newark will prepare health messages for broadcasting over New Jersey's 49 local radio stations, delivering current health information and news to an audience which includes hard-to-reach urban and rural disadvantaged persons. Advice on prevention, new discoveries, available services and emergency alerts will be presented regularly throughout the year. Approved: \$56,163. Reduced to: \$8,852.

All of these programs meet the goals of the President's 1971 Health Message which called for improving the delivery of health care for the disadvantaged, reducing the cost of medical care, and utilizing health manpower in the most effective manner.

The application of computer technology to medical care calls for a cooperative working relationship between all sectors of the medical care system, from medical schools and hospitals to private practicing physicians. The mission assigned to Regional Medical Programs has been the establishment of this relationship which is now functioning through successful operational programs. This investment of four years of voluntary effort on the part of practicing physicians throughout the state should now be fully used as the organizational framework for achieving progress in medical care.

We have progressed from an initial planning grant award of \$274,417 in 1967 to a three-year level funding of \$1,225,000. But the current budget level has forced us to curtail many of our activities, thus seriously hampering our growth and effectiveness. We are threatened with the loss of physician and consumer support.

If we are to represent a serious, locally responsible arm of the nation's effort to provide better care for more of our citizens, the Regional Medical Programs will require the full expenditure of the \$150 million authorized by Congress for fiscal 1972.

Thank you.

**STATEMENT OF JOSEPH B. REED, REGIONAL MEDICAL PROGRAM,
UPSHUR COUNTY, W. VA.**

Senator MAGNUSON. Dr. Reed.

REGIONAL MEDICAL PROGRAMS

Dr. REED. I guess you might say I am a hillbilly doctor from West Virginia, having been born, raised, educated, and finally trained in postgraduate work in West Virginia. I did venture to serve Uncle Sam for a couple of years in Fort Knox, but came back to practice in West Virginia.

I have a certain appreciation of the problems of the State that perhaps some of my fellow physicians are not completely aware of from a different aspect.

I speak from a rather narrow viewpoint actually, having been only concerned or primarily concerned as a consultant to one single regional medical program. The regional medical program in West Virginia has tried to be an innovator, educator, and stimulant, trying to start, establish, and fund initially new programs, but not trying to take on the long-term operation of these programs.

If they are not funded now, then two or three things will be lost. One, the efforts that have been expended up to this time; two, the programs themselves which I feel are worthy programs will have great difficulty in starting; and, three, it is often said that physicians are prima donnas and can't get along with other people.

Be that as it may, I think this is the real reason that funding should be continued for these programs, because the physicians have begun to place reliance on the Federal workers and I think have begun to establish a real working relationship here that if it is not carried on at this point, they will say this is another reason why we should not deal with the Government.

I would like to speak particularly about the school health program which I have been a consultant to. If you will refer to the bottom of the first page of my printed statement, this is a school health program for Upshur County, a county of approximately 18,000. We have six divisions. We provide service for a drawing area of approximately 25,000 people.

At present our school health program includes only the giving of immunizations, the State law requires tetanous, polio, smallpox, rubella, and as of this year will require rubella and the tuberculosis. We have very infrequent screening, only on recommendations of teachers. We have an occasional inquiry by one county health nurse.

The program as we proposed it will include primarily two aspects. First and I feel perhaps the most important is the education of the students. Funding will be provided to train teachers in the fifth, sixth, and seventh grades in teaching physiology and health, in the fifth grade to deal primarily with the pulmonary system, in the sixth grade with cardiovascular system, and in the seventh grade nervous system.

This training will include the effects of drugs, alcohol, and tobacco on health in general.

The second phase of the program is health screening and supervision to be administered by ARN. We hope to obtain the services of a pediatric nurse practitioner which hopefully in another year will come from another one of the regional medical programs in West Virginia sponsored by the university.

We also hope to train a new type of health personnel, allied health personnel which we have chosen to assist a school health aide. That is a graduate that will be taken with no medical training whatsoever and adapted to use in many of the jobs that school nurses customarily do, to aid the school health nurses.

Also these school health aides, we hope, will be able to aid dental hygienists and P.S. nurse practitioners. The dental hygienist, we hope to employ. These are hard to find in this section of the country. The physician will be used only as a consultant and not a primary work force.

I might quote briefly from the second page. During the last year I examined 90 students as a preliminary to this project; 39 of these children were found to have significant uncorrected dental problems. The amazing thing to me, and, I think, a very important reason for the education of the students as being the basic part of our problem, is that only nine of the parents accompanying these children appreciated that the children had dental problems.

There were actually 39 that were found.

The eye, ear, and emotional problems. Also the problem of rubella shots which had been offered in the school, but only 58 of the 90 had obtained them.

Senator MAGNUSON. Doctor, that dental problem is not only in West Virginia. I hope I will get my bill passed, which I put in for dental health. I think we are going to pull it out. The figures are staggering. Some have never been to a dentist even.

Dr. REED. I don't think that we can at this stage hope to accomplish a correction of all this, but my hope is that we can train the people to understand what they can do to prevent it.

Senator MAGNUSON. You have to make a start.

Dr. REED. This is one of the outstanding ideas.

Senator MAGNUSON. And training of auxiliaries is very important. You create a desire. Our problem, as you people know better than I do, is health manpower, the delivery of health care in this country. I think our research programs by and large are pretty good, but the delivery of the health care, if you can get these young people interested a great number of them may go on and become these auxiliaries, the manpower that we are going to need, and that is so rare today.

Dr. REED. One of the things that has come to me is the need for adapting physicians to use the auxiliary personnel.

One of the parts of RMP I would like to speak briefly to that I have been related with is the peer review for physicians' voluntary self-assessment. My association with this has been as a member of the State medical council and as an actual participant in the program. The idea of this is to select or to approach physicians to volunteer to participate and then sitting down with them and saying, what area of your records

of your practice do you wish us to review? Then going over the criteria that they themselves feel are necessary, admitting these criteria to a peer, to someone who is especially capable in the area, having their comments and then going and screening the records to find what the individual is actually doing compared to what he should do.

The idea of this, then, is to glean not only his weak points, but his strong points, so he will know where he can improve and what else he can do to strengthen his practice.

Another program that is being developed by the regional medical program is the idea of the visit or professor that comes down for 1 or 3 days and shares with us, consults with us. Not only do we learn from him, but he learns about our actual problems. It is an idea of getting feedback into the teaching centers.

In summary, I think that the regional medical program as I see it in West Virginia does have merit in that it can be the only link with the providers at the local level.

Senator MAGNUSON. Do you get any funds from Appalachia at all?

Dr. REED. Not in this program.

Senator MAGNUSON. You don't get any direct in the program?

Dr. REED. Not in the school health program. I am not really well acquainted with the other programs.

Senator MAGNUSON. Well, some Appalachia funds have been used for health programs, but they mainly are in conjunction with the county health agency. They don't go beyond that.

Dr. REED. In mental health we do have, I am pretty sure of that.

(The prepared statement follows:)

My name is Joseph B. Reed and I am a doctor of medicine engaged in general practice in the rural County of Upshur in the State of West Virginia.

I was born and raised in the small town of Burlington in Mineral County, West Virginia where I attended public school. My first two years of college were spent at Potomac State College in Keyser and the rest of my undergraduate work and medical school were completed at West Virginia University in Morgantown.

After medical school, I served my internship at Memorial Hospital in Charleston, in the southern part of the state.

The reason for mentioning these facts is to show that, having lived and worked in so many geographic locations within the state, I have gained a greater knowledge of the people of West Virginia and their health needs than most West Virginia physicians possess.

Also, I have been an officer, secretary-treasurer, of the Central West Virginia Medical Society, a member of the State Medical Council and a member of the Committee on Medical Education and Hospitals, all of which have given me additional insights into the health problems of rural West Virginia where there is such a maldistribution of physicians and allied health personnel.

Therefore, it was with keen interest that I attended the first health planning conference that was held by the West Virginia Regional Medical Program in Elkins.

This was the first contact which I had with the RMP, but it was not the last. While I was involved with work for the Medical Council and for the Committee on Medical Education and Hospitals, I met Dr. Daniel Hamaty who was among those who originated the concept of a voluntary self audit--peer review program for West Virginia physicians. This concept became a reality when it was approved by the National Advisory Council and funded by the WVRMP. I had the experience of participating in this project and I feel that the benefits of this project alone justify the expenditure of RMP funds in West Virginia.

This project provides for the voluntary participation of the individual physician who decides the particular type of critical illness he wishes examined. The criteria the physician strives to meet are of his own choosing, and only specially trained assistants are used to abstract data from the physician's records. The participating physician knows who is reviewing his records but the physician remains anonymous to the reviewers. At the completion of the audit, the results and comments of the peers are presented to the participating physician.

The results help the physician identify his strengths as well as his weaknesses; his needs in continuing education; and desirable changes in practice management or organization.

However, this was not the only project with which I am personally familiar that has had initial benefits and has the potential of having a really dramatic impact on the medical delivery system in our sparsely populated state. I have had the pleasure of working with Director Holland and Dr. Hall on the project entitled, "Toward a More Progressive School Health Program for Rural Communities."

This project is developing a system for making in-roads toward the improvement of family health maintenance in a rural area with limited health resources. From my own experience I can tell you that in addition to lack of resources there exists among the people a considerable lack of knowledge and understanding of good health practices in everyday living as a preventive measure in acquiring and retaining good health.

What we plan to develop in our county is a model school health program that can be replicated within the constraints of limited financial and human resources in rural West Virginia and similar areas.

For this project, the examinations of 90 first-grade students were done to find out how much actual pathology they had and to find out how many were receiving adequate treatment.

Briefly, here are some facts that were discovered by the examinations of the first 90 children:

- (1) Thirty-nine children had dental problems.
- (2) Twenty children had eye problems.
- (3) Fourteen children had ear problems.
- (4) Nineteen children had some degree of emotional problems.
- (5) Ten children had some degree of heart murmur.
- (6) Only 58 children had had rubella shots.
- (7) Only one child had had a flu shot.
- (8) Only one child had had a TB time test.

As you can see, there is a glaring deficit of dental care, and, even more frightening, a serious lack of apparent concern or knowledge on the part of the parents. Eye and ear problems could be picked up most of the time by screening.

What we have here, then, is a good example of what the WVRMP's project in Upshur County means to the present and future health of the citizens.

But, we no sooner get started on this project until it is time to start cutting corners on costs. The WVRMP, like all other RMP's, was informed of the budget cut.

I believe that West Virginia's program is similar to many other programs. The staff had spent several years getting ready--building the contacts, the rapport with the medical association and its major committees, and the associations with the institutions and other health personnel. The WVRMP was ready to move in several areas. There was mutual confidence and respect among the rural providers and the program's personnel. Suddenly, there was a slow down; the momentum changed; and there began developing a credibility gap among the providers. Of course, the budget cut was responsible and the only thing that will restore the program's image and bring back the program's credibility is to restore the money that has been appropriated but not spent.

In my opinion, the full \$150,000,000 authorized for fiscal 1972 should be appropriated and made available to the programs.

After all, the RMP's are the only link with the providers at the local level. They should be encouraged--not penalized. This is not a situation where all the signals are called from Washington. The Regional Medical Programs are decentralized. They are responsive to local planning and local implementation, and they are responsible for bringing together the many facets of the health care delivery system that ultimately will lead to more equitable distribution and more effective utilization of health resources in rural West Virginia and other similar states in our country.

STATEMENT OF C. ROBERT OGDEN, CHAIRMAN, ADVISORY COMMITTEE, WASHINGTON/ALASKA REGIONAL MEDICAL PROGRAM—Resumed

IMPOUNDING OF APPROPRIATED FUNDS

Senator MAGNUSON. All right, Bob.

Mr. OGDEN. Thank you, Senator.

As you know, I am chairman of the Washington/Alaska regional medical program and was a charter member of the regional advisory committee, having been appointed in April 1966 right at the beginning of the regional medical program. I represent consumers. I have been appointed to the National Advisory Council of the regional medical program and hope to have some opportunity to relate to RMP and contribute to the improvement of our medical care delivery.

I testified here in December 1969 to acquaint you with the needs of our region and detailed planning to achieve goals to meet the needs. I am here today to report not only on our progress but to protest the impeding of the progress by impounding of appropriated funds by the OMB.

Before citing some specific examples, I would like to commend this committee and the chairman for your past responsiveness to our needs. If it is not inappropriate to mention this, I fully agree with your comment in the letter to Secretary Richardson, dated April 1st of this year, in which you said:

The RMPs provide you and the Congress with the only direct, effective, organized access to the private health care providers. All of your proposals for improving the Nation's health system depends on the creation of a cooperative, flexible response by those who make up the RMPs. Where is this duplicated?

You state further:

If you are sincere about launching HMOs to provide comprehensive health services, and I assume you are, it appears to me you will urgently need the assets inherent in the RMPs.

I thoroughly agree with those statements. I can tell you it has not been an easy task to establish these linkages between practitioners, hospitals, clinics, and medical schools. These have grown slowly. Thousands of volunteer hours have gone into this program.

As a businessman I can tell you that a considerable amount of Federal funds have been consumed in the process. Now just as we have gained the confidence of the private health community and encouraged their development in our programs, the budget cuts by the Department of Health, Education, and Welfare and impounding of funds by OMB are frustrating our activity and are risking our future credibility.

Let me outline in brief what I mean and I am going to omit a number of things that are in the testimony and hit on some highlights. We had two subregional offices we had to close, one in eastern Washington and one in southeastern Alaska, because of the budget cutting. This is hampering us a great deal in contracts that need to be kept up on a regular basis.

We have had a protest resolution from our eastern Washington Advisory Committee. We have a whole file of letters from disappointed southeastern Alaskans. In particular, we have to eliminate our Federal representatives in our continuing medical education program.

For 5 years we have labored to build a network of volunteer physicians in 19 communities in Washington and Alaska whom we call our community continuing education coordinators. These were practicing physicians responsive to the opinions and needs of hospital staffs in their areas and coordinate the continued education efforts in local communities.

We have quarterly 1-day workshops for these people. They have become a cadre of practitioners through which change at the local level can be accomplished. For some 3 or 4 years these men requested that the weekly televised continuing education programs that we are producing presented only clinical information.

This year for the first time they have been requesting programs related to medical, social changes. The use of physician assistants, medical, medics, peer review, HMO's, but unfortunately because of these budget cuts we have had to reduce our production. We are not going to be able to give them all this material and our material is used by some 15 other regional medical programs around the country and eight to 10 major medical institutions and they also will be denied this material.

We had to cut out the workshops for these people because we did not have the budget. Cutting out field representatives who meet with these people has been a serious thing for us, too, right now when the Federal programs to meet the health care crisis new programs, are obviously imminent.

An understanding and support by practitioners is critical. It seems to me foolish economy to reduce our ability to communicate. Parenthetically the reduction in travel budgets of the field staff hits us particularly hard. Our regional medical program covers five time zones, 700,000 square miles, which is a fifth of the land mass in the United States. We have medical communities as far apart as Los Angeles and New York.

Our ability to travel and communicate by phone is of tremendous importance to us. Subregional coordinators and field staff and travel budgets have all had to be cut. Many small hospital laboratory technicians we have found in the hospitals, in the small hospitals in particularly, in Washington and Alaska, are not up to date. This is a serious problem.

When a laboratory technician comes to one of our programs, we have sent in a replacement for him. We are now unable to fund the replacement and if the local hospital cannot afford to pay a double salary to hire somebody and send a laboratory technician, he doesn't get the upgrading he needs. This is very important because young doctors today have been trained at major medical centers. They are trained to rely on laboratory technicians.

If the technician's work is poor, then the quality of medical care suffers from it. These budget cuts have retarded and maybe killed an innovative plan we had to rotate nurses in Washington and southeastern Alaska. That will hurt the updating of schools in that area.

I don't have to tell the committee also of the incidence of alcoholism in Alaska. It is a serious problem there. We sponsored two highly successful workshops for nurses on alcoholism in Juneau and Ketchikan last year. These grew to include not only the nurses, but physicians and clergy and policeman.

The public in Anchorage and other areas wanted these workshops, but we have been unable to fund them.

We have had to cut back on our heart program. We had planned to establish cooperating on-going training programs at community colleges for coronary care nurses. These have been wiped out.

The hospital inservice programs can train only a limited number of nurses. We have found in the past that this inservice training simply is inadequate. There is little quality control of the curriculum and insufficient use of the nurses' time. It seems to me ironic that when the need for greater attention to the quality of health care is emphasized and when areawide health education centers are seen as necessary, the funds for the prototypes for such centers are held back.

In my opinion, frankly, in a broad sense regional medical programs are today area health education centers. When S. 935 comes up for consideration in the next few weeks, I sincerely hope RMP will be firmly designated as the lead agency in establishing health education centers.

Improvement in cancer has always been a major goal. We are looking forward to the Fred Hutchinson Cancer Clinic which the chairman of this committee has obtained for Seattle and which will aid in cancer research and treatment for all of the Northwest.

The regional medical programs face a tremendous financial problem. The legislation extending RMP's was \$150 million for 1971. You mentioned a moment ago that Congress appropriated some \$111 million for RMP's for fiscal 1971. It was about \$10 million above the 1970 budget and would have permitted some growth in regional medical program activities.

In terms of grant funds, it would have been roughly from \$78 to \$88 million. After the funds were obligated and after the regions had planned on expenditures and established the programs, then these funds were partly withdrawn as a result of the OMB decisions to impound \$24.5 million. There was another \$10 million supplemental appropriation. It was also frozen.

The RMP grant funds were reduced, resulting in these cutbacks and termination of programs that both Drs. Bernstein and Reed talked about.

Mr. Chairman, I think that it is essential to approve the recommended budget of \$119 million as requested by the Regional Medical Program Service. In my prepared testimony I used the figure of \$136.9 million. Yesterday I was out at Rockville and talked to Dr. Margulies. This figure is in error. The RMP's request is for \$119, not \$136.9. I would like to make specifically that correction.

Our RMP's requested \$79.5 million for grants in 1972, requested the use of \$34.5 million carryover plus the \$5 million for the cancer center, which is \$119. Now I consider that the minimum.

The administration requests, as I understand it, \$34.5 carryover, \$5 million for the cancer center and some \$35.5 for grants, which is \$75 million. I look on that as totally inadequate for this reason: \$79.5 million, as requested by RMP's, will simply cover the existing obligations and still does not allow for growth. The \$34.5 or, if you put in the other \$10 million supplemental which was not included in the \$34.5 million, even the \$44.5 million carryover would not all go for

grants. Some of it will go for the clearinghouse for smoking and health, some of it for program administration.

There is some \$45 million in an approved but unfunded project not in the \$79.5 million requested by RMP. Also we should have funds to implement the portions of the President's health proposals which clearly fall within the framework now established by RMP. In these days of budgetary stringency and with due regard to Drs. Bernstein and Reed, who talked about \$150 million, which is the authorization in their prepared testimony, I think to talk about the authorization is unrealistic. You have made that point to a number of the witnesses here.

I do consider \$119 million the minimum. It is clear anything appropriated above that will go to approved but unfunded projects.

So, we appeal to you, Mr. Chairman, to labor for us as you have done before to shoot for something between \$119 and \$150 million.

Now of the President's proposal, the area health education centers are down our alley. We are already at work in other areas of the administration's proposals such as improved and expanded service by physicians, nurses, and allied health people, increasing utilization of other types of personnel, mechanisms to provide quality control and approved standards of hospitals, improved utilization of all pieces of health care, equipment, and technology.

Health maintenance organizations are already involved in studies of various needs in monitoring care and we can apply this knowledge in helping HMO's to come to life. To do this requires new program money. These are new programs on top of what regional medical programs have been doing in the past. It certainly cannot mean budgetary cutbacks. We recognize it is not possible for any one program or any one organization to solve all of the problems in the health care field but we in the regional medical programs have been at this for some 5 years. We are well down the road, I think, to finding some answers. Considerable sums of money already have been invested.

Equally important is the investment of literally millions of man-hours of time volunteered by highly specialized, professionals, and busy community leaders. I think if you make it possible for us to continue to build on the solid structure that we have established we can have a tremendously beneficial effect on the provision of health care in this Nation and we ask you not to wastefully discard this effort and this progress.

We appreciate the opportunity to be here, and thank you for hearing us.

Senator MAGNUSON. Thank you, Bob.

Now the \$25 million that is suggested you would make how much?

Mr. OGDEN. I am suggesting that the request of the regional medical program service be met and that is \$79.5 million for grants in 1972.

Senator MAGNUSON. On grants?

Mr. OGDEN. On grants.

Senator MAGNUSON. Last year it was \$99.5 million.

Mr. OGDEN. That is correct.

Senator MAGNUSON. They only asked for 45 on grants.

You suggest?

Mr. OGDEN. \$79.5 million.

Senator MAGNUSON. Now the obligations remain the same.

Mr. OGDEN. That is correct.

Senator MAGNUSON. Technical assistance and disease control is up a little. The other program management, we are really concerned with grants more than anything else.

Mr. OGDEN. Yes, sir. I don't know what they will do with the \$5 million for the cancer center, whether they have that in there or not. I really look on it as being something that should be separate.

Senator MAGNUSON. It was carried over, they tell me. That was part of the carryover.

Mr. OGDEN. That is right. We are working on the proposal now for a regional medical program service for the cancer center. We have to make an application to RMP for this. I was visiting with them yesterday about the guidelines that will be drafted. We are hopeful that guidelines will be available toward the end of this year or first of next year. If it were frozen, it ought to be available right now.

Senator MAGNUSON. It would have been available right now but there have been some little problems there. Of course I put it in the bill.

Everybody knows where it is supposed to go. I don't think there is any more trouble there. That is only one facet of this thing. It is a pretty important facet for everyone in the Northwest.

Mr. OGDEN. It will be not only for our area.

Senator MAGNUSON. With the medical school there.

Mr. OGDEN. It will affect the whole WAMI area, Washington, Alaska, Montana, Idaho. The expansion of the University of Washington Medical School, the whole development is going on. Students from all four of the States are beginning some of their studies in their home universities in their home States.

Senator MAGNUSON. We have Virginia Mason, you can walk down to Virginia Mason, that research facility. They have the Marine Hospital facility, you put them all together. We ought to do the same thing in Spokane.

Mr. OGDEN. Spokane will become an area health education center. We did a patient origin study. The study included not only Washington but Oregon and parts of Idaho. We have patients who come into Spokane from Canada, as far east as the Dakotas, down in Oregon, well down in Idaho.

Senator MAGNUSON. In the whole field of kidneys we have to wrap them into the regional medical.

Dr. BERNSTEIN. In New Jersey this is important. We had a training program for technicians and nurses in order to expand our regional dialysis facility. It had to be cut out because we didn't get the money.

(Discussion off the record.)

Senator MAGNUSON. On the record.

Thank you very much.

Mr. OGDEN. Thank you, Mr. Chairman.

(Mr. Ogden's prepared statement follows:)

My name is Robert Ogden. I am from Spokane, Washington, and currently am chairman of the Washington/Alaska Regional Medical Program's Advisory Committee. The governor of the State of Washington appointed me to that committee to represent consumers at the inception of the RMP in April, 1966.

As some of you may remember, I testified here in December, 1969, to acquaint you with the needs in our region and to detail our planning to achieve goals designed to meet these needs.

I am here again to bring you a five-year report on our progress and to protest the impeding of that progress by the impounding of appropriated funds by the Office of Management and Budget. Before citing specific examples, I would like to commend members of this committee, and its chairman, for your past responsiveness to our needs.

If it is not inappropriate for me to refer to it, Senator Magnuson, may I say that I fully agree with your comment in a letter to Secretary Richardson, dated April 1 of this year in which you said, and I quote, "the RMP's provide you and the Congress with the only direct, effective, organized access to the private health care providers. All of your proposals for improving the nation's health system depend on the creation of a cooperative, flexible response by those who make up the RMP's. Where is this duplicated?" (end quote) Further on you state, "If you are sincere about launching HMO's to provide comprehensive health services, and I assume you are, it appears to me you will urgently need the assets inherent in the RMP's". (end quote)

I would like to emphasize that the goal of the Washington/Alaska Regional Medical Program is to support the development of cooperative, integrated regional health care systems capable of making comprehensive personal health services available to all people in our region, regardless of where they live. In our present non-system of medical care delivery, this cannot be accomplished by federal edict nor can it be accomplished overnight. The experience in our region offers real hope that it can be accomplished when the federal government offers an opportunity for local health professionals to define their own problems and to coordinate facilities and resources for the benefit of all.

In Washington and Alaska, RMP has been able to create strong linkages between general practitioners, specialists, and staffs of hospitals, clinics, and the Medical School. These relationships grew slowly and only as members of the medical communities became persuaded that they had indeed been offered a bona fide opportunity and responsibility. Thousands of hours volunteered by busy physicians and administrators attest to their confidence in the Regional Medical Program.

As one of these volunteers, I can tell you it has not been an easy task to establish these linkages. As a businessman (I am an insurance executive) I can tell you a considerable amount of time and federal funds were consumed in the process. Now, just as we have gained the confidence of the private health community and encouraged their involvement in our programs, the budget cuts by the Department of Health, Education and Welfare and the impounding of funds by the Office of Management and Budget are frustrating our activities and risking our future credibility.

Let me outline briefly what I mean.

Two subregional offices, one in Spokane for Eastern Washington and one for Southeast Alaska had to be closed because of budget cutbacks. This not only seriously weakens the leadership and cooperation of physicians and other health personnel in Eastern Washington and Southeast Alaska, but substantially damages programs already improving patient care.

We had encouraged the formation of a subregional advisory committee to

deal with the particular problems of Eastern Washington and assigned a staff member to Spokane. After the closure of that office, The Eastern Washington Advisory Committee drafted a protest resolution and in the concluding paragraph of the covering letter they state, ". . . We will stay together and work with you and the central staff as best we can. However, you know that we are greatly disappointed with the present situation." (end of quote)

We also have a file of letters from disappointed Alaskans; as one physician put it, ". . . when they cut the budget, they certainly weren't thinking of the isolated doctors in Alaska." (end of quote)

Our continuing medical education program, which nourishes our close association with physicians, nurses, and allied health people, has been seriously curtailed by the elimination of our field representatives. We ask you to remember that our region covers five time zones and encompasses 700,000 square miles, or roughly one-fifth of the entire land area of the United States. We have medical communities farther apart than Los Angeles and New York. Subregional coordinators, field staff and their travel budgets are of vital importance. Our inability to fund them has an impact which is difficult

for anyone not from our region to fully understand.

To my mind, we are at the threshold of significant change in the delivery of health care. For the past five years, we have labored to build a communication network of volunteer physicians whom we call Community Continuing Education Coordinators. Their responsibilities include representing the opinions and needs of the hospital staffs in their area and coordinating all continuing education efforts in their communities. They participate on a regular basis in one-day workshops where they have examined some of the concepts and principles regarding changes in the delivery of health care. In these conferences, national leaders have reported on programs which are successfully instituting change. These Community Coordinators represent a cadre of practitioners through whom change at the local level can be accomplished. As an example, for the past three years, the audio-visual subcommittee of the Community Coordinators has insisted that their weekly televised programs of continuing education present only clinical information. This year, for the first time, they have requested programs relating to medical-social change; they wanted programs about the use of physicians' assistants, medical audit, and Health Maintenance Organizations. Unfortunately, the production budget

and staff have been so reduced that only a few of their programs can be produced. Fifteen other Regional Medical Programs and eight major medical institutions outside of our region which regularly use these programs will also be denied the material.

As we know so well, effective change depends upon effective communication. Surely now, when new federal programs to meet the health care crisis are imminent and when the understanding support by practitioners is critical, we should not reduce our ability to communicate.

The budget cuts of March, 1971, also eliminated a joint public health education effort which had considerable potential. A task force of representatives of public health and voluntary health agencies in the two states had met a number of times and were in the process of trying to find ways to coordinate their efforts and improve public health education. This was defeated by our inability to fund a public health education person to coordinate the program they suggested.

A very successful effort to update laboratory personnel in all communities in the two states has been seriously hampered because of cuts in personnel. In many cities in Washington and virtually all in Alaska, a replacement must be

provided if a lab technician is to leave her duties for refresher courses.

Our inability to fund laboratory technicians to serve as temporary replacements has reduced the effectiveness of the excellent program.

Our direct help to local communities seeking action in solving their own health problems has been severely hampered by this enforced budget trimming. Here is one example. An informal partnership was established, with RMP help, linking the small community hospital of Willapa Harbor with Seattle's Virginia Mason, a large specialty medical center. Other community hospitals became interested in such an arrangement. Yet cuts in staff travel and expense money jeopardize the growth of similar relationships. Keenly felt will be the loss of those planned for an island community near Tacoma which totally lacks hospital facilities.

Another example is the cancellation of training trips for the farm worker members on the Board of a Family Health Clinic in the Yakima area. We need to bring lay and medical members of action groups together with those from other towns to exchange experiences and consolidate regional resources.

The budget cuts have retarded and possibly killed an innovative plan to rotate nurses in Washington to a small hospital in Southeast Alaska, plagued

by a serious shortage of nursing personnel. This demonstration could have proved to be a workable model for other remote hospitals in Washington and Alaska.

I don't have to tell you that the incidence of alcoholism is high in Alaska and that it poses a serious health problem. RMP sponsored two highly successful workshops for nurses on alcoholism in Juneau and Ketchikan last year. They grew to include not only nurses but physicians, members of the clergy, the police and the public. As news of their success spread, other communities, including Anchorage, requested similar programs. Restriction in funding made it impossible for us to meet these requests.

Development of additional preceptorships specifically for rural nurses has been curtailed, making it impossible to obtain refresher training. Travel and living expenses are too costly to be met by the RN earning an average salary. Again, we have had to cut our travel assistance to nurses in these areas which enabled them to attend regional workshops and seminars. Thus another resource for the nurse anxious to upgrade her skills and knowledge was dropped.

Cutbacks in our heart program in 1970-71 substantially reduced its

effectiveness in the attack on the number one disease killer in the nation.

Our plans to establish cooperative ongoing training programs at community colleges for coronary care nurses were wiped out. Most of the subregions have have returned to hospital in-service programs which can train only a limited number of nurses. There is little quality control of the curriculum; and there is inefficient use of physician and nurse instructor's time. It is ironic that when the need for area-wide health education centers is being emphasized, funds for a program which is a prototype for such centers have been reduced.

Our mobile coronary care project was insufficiently funded and is operating now with donations from the public. Their gifts are operating funds and are not intended to support the research and evaluation activities which could provide valuable recommendations for the other city governments which must now include coronary care capability in their emergency transportation facilities. I submit that the knowledge to be gained from this demonstration project is too valuable to be dependent on the vagaries of public donations.

We had planned to develop the coronary care mockup facility at the Pacific Science Center in Seattle as a training center to teach cardiopulmonary

resuscitation and to improve the public's understanding of preventative, emergency, hospital and rehabilitative cardiac care. This, too, has been abandoned.

Our renal-adrenal hypertension project had to be discontinued prematurely. Hypertension is a major risk factor in premature death related to heart disease and stroke. The project was making significant progress towards developing an inexpensive, more generally available screening test for curable hypertension.

The President's Health message called for more effective use of computers and other technological advances to meet problems of health care delivery. But our medical computer services budget was cut by two-thirds, completely halting our plans to evaluate computer-aided interpretation of electrocardiography in remote areas in the region.

Another program which was reduced in scope is the Kidney Disease Control Program, developed by Dr. Belding Scribner, famous for his inventions which made possible artificial kidney treatment. Dr. Scribner's original plan was to coordinate the existing kidney treatment centers in Washington, Alaska, Montana and Idaho and expand dialysis and transplant capabilities throughout

this four-state region. Unfortunately, lack of funds has prevented this comprehensive program from being fully instituted.

Improvement of cancer care has been a major goal of the Regional Medical Programs. The President recently emphasized attention to this disease. Unfortunately, our efforts in this area, underway for five years, have been restricted due to budget cuts. The one notable exception will be the Fred Hutchinson Cancer Center, which the chairman of this committee, Senator Warren Magnuson, was instrumental in obtaining for the Northwest. It will add a much needed resource to our area.

Two years ago an automated tumor registry was established in Washington and Alaska, but continues to be handicapped in its operation and plans for expansion by lack of adequate funds. Many Alaskan hospitals want to join the registry, but funds are not available to send a consultant to train their medical record librarians in abstracting and coding patient information for the computer. The Regional Medical Program has been searching for a permanent means of support for the registry, but so far, only temporary aid is available. This has been squeezed from slim budgets of the state cancer society divisions and from the Washington State Health Department. In spite of Alaska's concern for

the registry's success, this year the Alaska Cancer Society was unable to contribute any money at all. As a result, Alaskan tumor registry secretaries did not attend cancer workshops in Seattle because of excessive air fare costs.

Twenty-eight hospitals in our region are currently participating in the centralized registry and are sharing its benefits. The registry provides a comparative record of cancer treatment and it monitors the effectiveness of early detection and current therapy. The computerized form of record keeping also reminds physicians that a patient is due for a check-up, which may often be as important to the patient's recovery as early detection is.

Another project which has the potential of altering the course of cancer care in our region is one which serves physicians using radiation therapy. This service provides immediate and accurate information to physicians in Washington, Alaska, Oregon and Idaho who must know the precise dosage of radiation required to destroy a tumor. However, due to lack of funds, our project directors had to restrict this valuable service.

Fortunately, the Fraternal Order of Eagles in Washington State recognized the critical need and raised the money to fund a 14-station telecopier network which makes the computations immediately available. As a result, cancer patients,

regardless of their distance from a medical center, may have the same benefits provided patients in a metropolitan area. Here again, this service is too important to be left to the uncertainties of charitable donations.

In the area of stroke, neurologists and neurosurgeons have been volunteering their time to hold public forums in Seattle and Spokane to discuss the treatment and rehabilitation of stroke patients. Unfortunately, we had to discontinue these popular meetings due to lack of funds.

Courses for health professionals in rural areas were also presented to upgrade the care of stroke patients. These programs were also eliminated, even though the director of the RMP Stroke Program had a backlog of requests for the courses.

Both stroke and cancer control activities will be further reduced due to an economy move which consolidated the two programs under one director.

The budget cuts have also made it impossible to give raises to any of our staff. Many of these people are highly-trained technicians. We cannot expect them to stay with our programs if we cannot meet the incomes they could obtain elsewhere.

Maldistribution of medical facilities and personnel is a major problem, not only in our region, but in many other states. We tackled this problem three years ago with an extensive study of all patients who were discharged from Washington, Oregon and Idaho hospitals during a specific period of time. Of the 267 hospitals eligible to participate, 251 joined the survey. Already facts from the study have influenced passage of state legislation which will avoid duplication of facilities. We know there is a wealth of information contained in the study, but it is an expensive process to abstract the data and study and interpret the results so that they may be useful in planning future facilities and placement of specialized personnel. It would be unfortunate if some key answers to future health care planning remain locked up in reams of computer print-outs because the Regional Medical Program cannot afford to employ a researcher.

Difficult as our budgetary restrictions have been, I would be remiss not to report that the Washington/Alaska Regional Medical Program has also experienced some spectacular successes. However, we face a major financial problem in the future. It is apparent from the comparison of these figures.

In 1970 the National Advisory Council approved \$2,437,316 for the
W/A RMP grant. The actual award was \$1,811,935. In 1971 for 11 months
of operation, the amount approved was \$1,703,215. The amount of the actual
award was \$1,447,885. The gaps between the recommended and the actual grant
award mean that the Washington/Alaska Regional Medical Program cannot keep
its financial commitments to valuable programs that are now producing results
nor can we acknowledge in any way other problems which deserve our attention.

Mr. Chairman and members of the committee, I think it is essential to
approve the recommended budget of 136.9 million dollars as requested by the
Regional Medical Program Service. If we can restore the programs which were
cut or are now in jeopardy, we can, in my opinion, still salvage the confidence
and cooperation of the practicing community. It is also essential to add the
funds necessary to implement those portions of the President's health proposals
which clearly fall within the framework now established by the Regional Medical
Program.

I'm sure that no better structure exists to implement the area health
education centers recommended by the Carnegie Commission and endorsed by
President Nixon. The process of subregionalization of many of our successful

project activities has given local medical communities total responsibility for their operation. These programs are now centered in hospitals and with very little further implementation can be regarded as the beginning of many area health education centers. A wider view might term the entire Regional Medical Program an area health education center.

When we consider Health Maintenance Organizations, another strong point in the President's message, we can cite our experience in community services and our links with the health providers.

The staff of the newly formed HEW office in our region has asked us help with the organization and execution of their information program. They recognize, as many do, that our communication people are unusually skilled in medical public relations and in media use, both for professional instruction and public information. They also need to take advantage of our established communication network with health professionals. Even though our Production Unit is already overcommitted, we are trying to respond to their urgent priorities. The advantage of a well-coordinated information program for all HEW agencies is obvious.

There is also need to expand an instructional program in which we

are training the Model Cities non-professional outreach workers in their home health programs. The objective is to help both members of poor and minority groups and the white health professional overcome some of the common language barriers which confuse relationships, distort attitudes and tend to obstruct optimal care. The need is so great and the funds we were able to commit to this effort so small, we can do little more than demonstrate a successful method of approaching this difficult problem.

We must never lose sight of the fact that intelligent utilization of the health system depends on the degree of knowledge of our health consumers. Regional Medical Programs is ready to cooperate with Comprehensive Health Planning agencies in coordinating efforts of existing voluntary and public health organizations to assure acceptability and proper utilization of our health system.

We have new and innovative programs now awaiting funding. Three possible cancer projects, for example, have died on the vine during the past year because of uncertain prospects for funds. One would have upgraded the performance of non-qualified X-ray technicians in rural areas. Another would have studied the problems of the cancer patient in depth and sought for recommenda-

tions to improve their care. A third would have provided training in nuclear medicine for X-ray technologists. Nuclear medicine is a fairly recent discovery in diagnosing and treating cancer.

Our Regional Advisory Committee has already approved others which await release of funds. One is for an Urban Indian Health Clinic in Seattle to serve the 11,000 Indians living off reservations who are lost in the limbo between the Bureau of Indian Affairs and the state and federal welfare systems which do not recognize them. There are hundreds of small villages in Alaska, lacking doctors, hospital facilities and transportation, which could be served by our approved proposals for the use of new kinds of physician's assistants and expansion of allied health personnel functions.

We recognize that it is impossible for any one program, any one organization or agency, to solve all the problems in the health care field. But we in the Regional Medical Program have five years experience and are well down the road toward finding some answers. Considerable sums of money have already been invested; equally important is the investment of millions of man hours volunteered by highly specialized professionals and busy community leaders.

If you make it possible for us to continue to build on the solid structure we have established, we can have a tremendously beneficial effect on the provision of health care in our nation. I ask you not to wastefully discard this effort and this progress.

RESUMEPersonal Information

Name: Chester Robert Ogden

Birth: August 11, 1923; Clarksburg, West Virginia

Home Address: 1230 East 20th Avenue, Spokane, Washington 99203
(KE 4-0720)

Office: 1120 Paulsen Building, Spokane, Washington 99201 (TE 8-4235)

Marital Status: Married December 30, 1954, Margaret E. Martin of Spokane, Washington, a graduate of Smith College, 1947.

Children: Three sons - David (15), Robert (13), Douglas (12)

Education

Roosevelt Grade School, Spokane, Washington

Lewis and Clark High School, Spokane, June 1941; valedictorian and president of the student body.

Harvard College, S.B., Magna Cum Laude, 1946. Economics and English. Harvard College Scholarship. Assistant Graduate Secretary, Phillips Brooks House; Chairman, Dunster House Committee; Member, Board of Editors, Harvard Advocate. Hasty Pudding-Institute of 1770; Sigma Alpha Epsilon.

Harvard Graduate School of Business Administration.
Completed Veterans' Course, 1947.

Yale Law School, LL.B., 1950. New Haven Legal Aid Bureau, student chairman, civil matters; Thomas Swan Barristers' Union; Treasurer, Student Association. Phi Delta Phi; Corbey Court.

Career History

President and General Counsel
North Coast Life Insurance Company
Spokane, Washington
1965 to date.

I organized and raised all capital for this company which operates in eleven western states and has achieved over \$50,000,000 insurance in force in four years. As President, I am responsible for general administration and investments. As General Counsel, I handle all legal and regulatory affairs.

President and General Counsel
Great Northwest Life Insurance Company
Spokane, Washington
1963-1964

This company, which was formed in 1928 and operated in nine western states, was merged into Sunset Life of Olympia, Washington, following a struggle to maintain it as a Spokane employer. I performed the same duties as at my present company.

Vice President and Counsel
R. J. Martin & Co., and R. J. Martin Mortgage Co.
Spokane, Washington
October, 1958 to date

These firms are a private mortgage company engaging in chattel and real estate financing and an insurance agency, owned by my father-in-law. I was active on a daily basis in these companies from 1958 to 1963, and continue to handle their legal affairs.

Messrs. Preston, Thorgrimson & Horowitz, Lawyers
Northern Life Tower
Seattle, Washington
April 1957, to October 1958

General practice, specializing in the law of municipal bonds and in corporate finance. Left to join father-in-law in Spokane.

Messrs. Hawkins, Delafield and Wood, Lawyers
67 Wall Street
New York, New York
April, 1953 to April, 1957

General practice in the law of municipal bonds, corporate finance, general corporate matters including formation, mergers and acquisitions, securities regulation, insurance, savings institutions and administrative law. Left to return to northwest following marriage to home town girl.

Messrs. Chadbourne, Parke, Whiteside, Wolff & Brophy
25 Broadway
New York, New York
August, 1950, to April, 1953

Airline regulatory and financing matters, and administrative law. Left to join a smaller firm for broader experience.

Biographical Listings

Who's Who in the West; Who's Who in Commerce and Industry; Who's Who in Insurance.

Memberships

Member of the Bar in the states of New York and Washington.

Memberships continued

American, Washington State and Spokane County Bar Associations. Member Subcommittee on State Premium and Local Taxes and on Interest Paid, Committee on Insurance Companies, Section of Taxation, American Bar Association. Member, Section of Insurance Negligence and Compensation Law and Section of Corporation, Banking and Business Law, American Bar Association.

Association of the Bar of the City of New York (1952-1960)

Estate Planning Council of Spokane.

Spokane Club; Masons; Episcopal Church

Civic Activities

Chairman, Executive Committee and Regional Advisory Committee, Washington/Alaska Regional Medical Program. (Appointed by the Governor of Washington State as charter member of RAC, 1966).

Member, National Advisory Council, Regional Medical Programs; first appointed July, 1970, reappointed July, 1971 for a term to expire November 30, 1974.

Executive Committee and Board of Trustees, St. Luke's Hospital, Spokane (1965--). Chairman, fund drive for new hospital (1964-1965).

Board of Trustees, St. George's School, Spokane (1965--)

Chairman of the Board, Booth Memorial Hospital, Spokane (1964)
Board Member, 1961-1964.

Board of Trustees, Spokane Chamber of Commerce (1963-1967), Chairman, Education Bureau (1962-1964).

Downtown Rotary, Spokane (Vice Pres., 1963-1964; Sec. Treas., 1969-1970).

President, Inland Empire Harvard Club (1962-1964)

Chairman, Schools and Scholarship Committee (1960--)

Area Chairman, The Harvard College Fund (1960--)

Area Chairman, The Harvard Business School Fund (1969)

Candidate for Director-at-Large, Associated Harvard Alumni (1969)

Service Experience

Thirty-two combat bombing missions as first pilot of a B-24 bomber in Italy, World War II. Assistant Operations Office, 744th Bomb Squadron, 456th Bomb Group, 15th Air Force. Discharged with rank of First Lieutenant. Holder of Distinguished Flying Cross, Air Medal with two Oak Leaf Clusters, four battle stars to European Theater ribbon.

Republican Activity

- 1968 Eastern Washington Coordinator, Nixon-Agnew Campaign
 Executive Committee, Washington State Nixon for President Committee
 General Chairman, Agnew visit to Eastern Washington
- 1963-65 Member, Executive Committee, Washington State Republican Central Committee
- 1962-63 Secretary, Washington State Republican Central Committee
- 1961-65 State Committeeman, Spokane County
- 1960 "Advance Man," national Nixon-Lodge Campaign
 Chairman, Nixon for President Committee, 5th Cong. Dist.
 Alternate Delegate, Republican National Convention
- 1959-60 Vice Pres., Spokane County Republican Club
 Vice Pres., and Secretary, The Lincoln Club, Spokane
- 1959-64 Precinct Committeeman, Precinct 694, Spokane
- 1958 Eastern Washington Chairman, Citizens for Eisenhower-Nixon Congressional Campaign
- 1957-58 Board of Governors, Young Men's Republican Club, Seattle
- 1956 Chairman, Youth for Eisenhower-Nixon, State of New York, and organization of over 4,000 young people in 37 counties
 Appeared twice on "America's Town Meeting of the Air," a nation-wide broadcast on the radio, representing Young Republicans in the United States, once in defense of Richard Nixon during the so-called "dump Nixon movement."
- 1950-56 Board Member and Secretary, New York Young Republican club, New York City. Chairman, Speakers Committee.
- 1948-50 Young Republican Club, Yale University
 Vandenberg for President Committee, New Haven, Connecticut

NATIONAL INSTITUTE OF ARTHRITIS AND METABOLIC DISEASE

STATEMENT OF DR. J. SYDNEY STILLMAN, DIRECTOR OF THE
CLINICAL RESEARCH CENTER FOR JUVENILE RHEUMATOID
ARTHRITIS, CLINICAL RESEARCH CENTER, ROBERT B.
BRIGHAM HOSPITAL, BOSTON, MASS.

PREPARED STATEMENT

Senator MAGNUSON. Dr. Stillman.

Dr. STILLMAN. We would both like to present some testimony in behalf of the National Institute of Arthritis and Metabolic Disease. I have presented a prepared statement in which there is a citizens budget.

Senator MAGNUSON. We will put it in the record in full at this point. (The statement follows:)

Mr. Chairman and Members of the Committee: I appear before you today to speak on behalf of the activities of the National Institute of Arthritis and Metabolic Diseases. My name is J. Sydney Stillman and I obtained my M.D. degree at Harvard University Medical School. At the present time I am Director of the Clinical Research Center for Juvenile Rheumatoid Arthritis, Robert B. Brigham Hospital, Boston, Massachusetts. I am consulting Physician in Arthritis at the Veterans Administration Hospital, West Roxbury, Massachusetts and an Associate Clinical Professor of Medicine at the Harvard University Medical School. I am also Visiting Physician at the Boston City Hospital, Senior Associate in Medicine at the Peter Bent Brigham Hospital, Boston and was the Chief of Medicine, Robert B. Brigham Hospital, Boston. During World War II, I was a Lt. Colonel and Chief of Medicine at the Pasadena ASF Regional

hospital. I am a Founder and Past President of the New England Rheumatism Society and Co-Founder of the Massachusetts Chapter of the Arthritis Foundation. I was a member of the Surgeon General's Workshop on Prevention of Disability From Arthritis and am a Member of the Executive Committee and the Medical and Scientific Committee of the Massachusetts Chapter of the Arthritis Foundation. I am Chairman of the Medical Administrative Committee of the Arthritis Foundation and President of the American Rheumatism Association.

Mr. Chairman and Members of the Committee: It is my privilege to testify before you today on behalf of the National Institute of Arthritis and Metabolic Diseases. Before beginning, however, I wish to commend you for the continuous support you have given to the vital programs of the National Institutes of Health (NIH), and for your understanding of the urgent need for biomedical research and research training.

My specific intent today is to discuss the progress being made by one of the ten NIH components, the National Institute of Arthritis and Metabolic Diseases. This Institute is performing admirably its task of obtaining new biomedical scientific knowledge needed to control the various arthritic disorders, which are probably responsible for more crippling and discomfort than any of the other ills of man. In addition, the Institute supports or conducts research in metabolic diseases such as diabetes and cystic fibrosis, in diseases of the gastrointestinal tract such as peptic ulcer, in endocrine gland diseases, in disorders of blood, liver, and bone, in urology and diseases

of the kidney, in orthopedics, dermatology, nutrition, and many others. As you can see, this is an extremely broad area of responsibility. I am sure that in the future the Institute will continue to approach its many research problems with confidence that it can aid materially in solving some of the major physical ills of mankind, and with sincere appreciation for this Committee's support.

Today, before I cite briefly some specific advances made by or supported by the National Institute of Arthritis and Metabolic Diseases, I would like to call to your attention an article which shows, in terms of dollars and cents, how government allocations for research actually put money back in the Treasury coffers.

The article, written by syndicated columnist Sylvia Porter, an astute money-manager, was published only a few weeks ago and points up the findings of a recent cost-effectiveness analysis.

She writes, for example, that the combined income of the 554,000 wage-earners whose lives were prolonged in 1967 as a result of modern biomedical research was \$13.8 billion, out of which they paid \$1.7 billion in income and excise taxes. The federal appropriation for all the National Institutes of Health, for that same year, was below this tax total, only \$1.4 billion.

Miss Porter states, in other words, that over the past decades, the federal government has gained far more in taxes from persons whose lives

have been prolonged by better health knowledge than it has appropriated for all the research leading to this better knowledge.

A cost-effectiveness analysis she quotes shows that for every \$1 invested in improved diagnosis and control of arthritis, for instance, \$38 would accrue to our national income - and the list could be extended indefinitely to include elimination or suppression of heart disease, digestive disease, venereal disease, etc.

From a strictly economic viewpoint, there is no doubt that all of us benefit from health research which shifts people from handicapped tax burdens to productive taxpayers.

If I may be permitted one last further quotation, Miss Porter states: "Writing for myself and I'm sure for you, I would willingly finance the research which might save my life some day. Writing for both of us I urge Congress to weigh those health research budget figures with utmost concern, for at stake in them may be their lives too."

So much for the economics. As for the science itself, the solution of the ills that plague man will be no small task. The complexities of biomedical research are exceeded only, perhaps, by the complexities of the human body itself. In addition to money, productive laboratory experiments and clinical trials require equipment, time, labor, patience, diligence, persistence and above all that one commodity, talented, prepared minds, which cannot be created by money alone but requires training, good will, and that divine spark which resides in all of us to some extent.

In discussing the specific accomplishments of this Institute during the past year and the directions of future research, I will devote most of my time to arthritis research because this is my own special field of interest. Because of the vast amount of basic information on arthritis-related immunological, biochemical and physiological mechanisms which has been assembled, I consider this area to be one of the more fascinating and challenging fields of medicine today.

As you know, rheumatoid arthritis afflicts about 4 million people in the United States. It is a painful, crippling, sometimes completely disabling disease that costs the Nation nearly \$4 billion annually in diminished income and increased medical expenses. Only 25 years ago little could be done to alleviate the pain or slow the progression toward joint deformity. Today, however, scores of pain-relieving and inflammation-suppressing drugs are available or under development and various methods of therapy and rehabilitation have altered the prognosis for the afflicted patient. We know the real hope, nevertheless, lies in understanding and preventing the original cause or causes of inflammation and degeneration of joints and surrounding tissues.

Scientists of the Institute and elsewhere are endeavoring to discover whether an infectious process, an autoimmune reaction, or possibly a combination of both processes are involved in the cause of the disease. To date, however, firm proof that infectious agents cause this disorder remains elusive. It is possible that an autoimmune reaction in which the body over-reacts to proteins

(perhaps modified by infection) originating within the body's own tissues may be the causative mechanism.

To return for a moment to the former hypothesis, that of a transmissible agent in human rheumatoid arthritis, in previous years investigators have injected mice with tissue from human patients with rheumatoid arthritis. They have found that the mice acquired an arthritic disorder in which cellular changes resembled those commonly found in human rheumatoid arthritis, and that these changes were also transmitted to their offspring. These, in turn, passed on the condition to the next generation of mice, and they, in turn, passed it on to a succeeding generation. This arthritis has now appeared consistently in several generations of experimental animals who never received injections of human rheumatoid material. This very exciting line of research may further implicate the infectious aspects of arthritis, as well as show us whether this disorder has hereditary tendencies.

I can report that during the past year, the Australia antigen, a virus first isolated in Institute laboratories, has been linked with arthritic disease, according to grant-aided studies. The antigen is being investigated primarily as a hepatitis-associated virus, but the grantees found it associated, in several patients, with a true arthritis - with clinical signs of joint inflammation, effusions, joint swelling, and redness, appearing very much like rheumatoid arthritis.

I wish to point out, however, that while various transmissible agents have been found in close association with rheumatoid arthritis, it still is not possible to state that any particular one of them is causative.

The second hypothesis, that rheumatoid arthritis is an immune disorder, is based on observations that immunological reactions within the body, (possibly initiated by invading organisms) can cause the type of inflammatory lesions observed in the disease.

Interestingly enough, while most investigators explore the possibilities that rheumatoid arthritis is an immune or an infectious disorder or a combination of both, one Institute-supported investigator has presented evidence to support his theory that this disease may be, at least in part, a metabolic derangement. His research is based on the discovery that the blood of persons with rheumatoid arthritis contains subnormal concentrations of histidine, an amino acid and one of the building-blocks of protein. This grant-supported investigator has treated 70 rheumatoid arthritis patients for periods averaging nine months with daily oral doses of L-histidine as large as six grams. Preliminary reports note modest but apparently significant improvement due to the histidine in three standard measurements of the disease's effects.

I might add at this point some advances made in the treatment of arthritis. Physicians rely mostly on aspirin to reduce pain and inflammation. In the doses usually prescribed, however, it can sometimes cause complications, including gastrointestinal bleeding. We are constantly searching for less toxic but equally effective salicylates. In Institute-aided research, a buffered and soluble form of aspirin given as a liquid was reported to reduce the incidence of bleeding significantly. This is in comparison with aspirin in solid form which can cause a local reaction which elicits bleeding on gastrointestinal surfaces. Other grant-assisted studies, meanwhile, showed that bleeding also may be diminished through use of an alternate aspirin. The substance is a choline salt of salicylate that is available in both

liquid and tablet form, which, in clinical trials, caused significantly less gastrointestinal bleeding than regular aspirin tablets.

Grant-supported investigators are also studying drugs which might fit into one of the hypotheses previously mentioned. For example, the concept of rheumatoid arthritis as a disorder of immunity has led to the study of a number of drugs that suppress this biological reaction. One of these drugs, cyclophosphamide, has been under intensive trial because it is an effective immunosuppressive agent.

An Institute grantee this past year reported on controlled clinical trials of cyclophosphamide. While this drug may be of significant value in the treatment of patients with severe rheumatoid arthritis who are refractory to standard forms of therapy, its use in large doses was accompanied by a high rate of undesirable side effects. Additional studies are underway to determine whether this potent drug will be effective in graduated and small dosages, in other words, at dosages below apparently toxic levels.

In the beginning of my testimony, I mentioned cost-effectiveness analysis regarding arthritis research vis a vis shifting people from handicapped tax burdens to productive taxpayers. A glance at the prevalence statistics of some of the diseases within the purview of the National Institute of Arthritis and Metabolic Diseases should lend impact to my statement.

There are some 17 million sufferers from all forms of arthritis.

According to health surveys, the prevalence of diabetes in the United States has more than doubled since 1950. There are over four million diabetic people in this country, while another five million of our present population

are expected to develop the disease during their lifetime. It is estimated that approximately 10 million Americans, or over 5 percent of the entire U.S. population, now have or have had peptic ulcers. This figure, by the way, does not include victims of other disorders of the gastrointestinal tract, such as ileitis, and ulcerative colitis. There also exist the equally debilitating diseases affecting associated organs such as the liver, gallbladder, and pancreas. I could also cite the eight million Americans who are afflicted with diseases of the urinary tract and the kidneys, and an estimated 55,000 individuals who die each year in the United States of irreversible kidney failure.

The list of statistics is shocking. It brings to bear, that apart from the economic considerations, there is the far more important one of simple humanitarianism. Now I realize with inflation and the war still hanging over our heads, and with the new emphasis on more widely available health care and environmental protection, it is obvious that expenditures for biomedical research may not be as fashionable. I submit that such research must be supported generously - not weakened because of failure to understand the necessary priorities in public expenditure.

I have heard it repeated ad nauseam that what America needs is more physicians to give us the improved health care we all strive for. What is usually forgotten in this simplistic statement is the fact that without increased biomedical research to give us greater understanding of disease,

better methods of treatment, and more effective tools with which to work, there will be no improvement in health care, even though there may be more of it.

At this point, I would like to mention very briefly a few of the other developments in several disease areas in which this Institute has responsibility.

In diabetes research, Institute grantees are continuing their studies of the basic impairment of insulin action, and why the body is unable to utilize carbohydrates normally for energy expenditure and storage. They are also concerned with finding ways to suppress the development of vascular and neurological complications of the disease, including arteriosclerosis, nerve damage, kidney failure and blindness.

Cystic fibrosis is a most serious hereditary disorder of children, which is invariably, ultimately fatal. Institute and Institute-supported studies have provided gratifying advances in the diagnosis and treatment of cystic fibrosis, and now they are placing a new and greater emphasis on basic studies. In this regard, a new finding that may explain the abnormal excretion of both viscous mucus and high salt concentration that characterize cystic fibrosis has been provided by an Institute grantee. He has shown that the skin of children with cystic fibrosis is deficient in a specific lysosomal enzyme called beta-glucuronidase which is linked to mucopolysaccharide (a group of complex carbohydrates) metabolism and salt transport. Further study will be required to learn whether the observed decreased beta-glucuronidase activity represents decreased enzyme synthesis, abnormal enzyme structure, or inhibition by some other substance.

In digestive diseases research, new and exciting studies are taking place in the field of peptic ulcer. Gastrin, the hormone which stimulates secretion of gastric juices, was synthesized by Institute grantees several years ago, and this laboratory feat has provided an important research tool for studying peptic ulcer, in which an excess of acid digestive juices is secreted. This past year, another group of grantees has shown that experimental induction of immune antibodies against gastrin in rats can inhibit the potent gastric acid stimulatory action of gastrin. This finding may have a potential for clinical application, and suggests the possibility of counteracting excessive gastric acid secretion in disease states such as peptic ulcer.

The brevity of my testimony forces me to leave unmentioned many other important accomplishments. I would like to cover in brief, however, the Institute's kidney disease program. One major goal is to make possible the use of transplantation as an improved and relatively permanent therapeutic measure against irreversible loss of kidney function. It is in the latter area that one of the Institute's grant-supported investigators has made a significant finding involving closer immunologic matching of donor and recipient tissues. His studies suggest that use of both white blood cells and kidney cells for tissue typing is a practical and preferred method in transplanting human cadaver kidneys and is likely to improve the long-term outcome of such transplants significantly.

As you may recall from previous testimony, the Institute's Artificial Kidney Program, a collaborative research and development activity, seeks to provide compact, efficient, and less expensive artificial kidneys, and

improved dialysis methodology. I have learned that this Program has now reached a phase in which many improved, life-saving artificial kidneys are being developed, while others are passing their final clinical tests or have already come off the assembly line.

Mr. Chairman and members of the Committee, before ending my testimony I would like to address myself to a most important facet of Institute activities, one to which we owe a great deal both directly and indirectly and which at the moment is in grave danger, mostly I believe, because its pervading importance for the teaching of medicine, for biomedical research, and for high-quality patient care is not well understood. I am referring to training.

The National Institute of Arthritis and Metabolic Diseases is involved in providing knowledge that is used in the diagnosis and treatment, and in some cases the prevention, of numerous major diseases, as I have pointed out earlier in my testimony. Its research training programs span the broadest spectrum of training activities at NIH, and are the single most important source of medical teaching manpower in departments of medicine in our medical schools.

These training programs, which over the past several years have not been allowed to grow, now are threatened with a very serious reduction as funds are taken from specific, carefully evaluated, disease-related training and siphoned off into a generalized area of manpower training to be administered by another bureau.

Again and again it has been pointed out to biomedical researchers and teachers that the end goal of treating patients must be kept in mind. The physician who treats patients must rely largely on information stored in the computer of his brain and this information, in turn, is originally derived from research findings. If this memory bank is inadequate because the input has been limited, some of his patients are going to suffer from this inadequacy.

In this respect, the National Institute of Arthritis and Metabolic Diseases has placed the strongest emphasis on research and research training in those disciplines most directly related to the practice of medicine. I will itemize not only the fundamental disciplines such as biochemistry, physical biology, molecular biology, anatomy, enzymology, but also direct disease areas of rheumatology, gastroenterology, dermatology, kidney disorders, and others. In effect, the role of this Institute is unique in the training of medical school teachers as it is responsible for more clinical specialties than any other institute at NIH. More clinical specialty training is thus supported in the various departments of medicine in medical schools throughout the Nation. More teachers, of course, are a prerequisite to the production of more physicians, and better teachers, as produced by this program, are prerequisite to the production of better physicians.

These training programs are, indeed, vital to the force, movement and quality of American medical practice. It is a question, if you will, of critical mass. The research training programs assure, primarily, that we will have a sufficient number of independent researchers and teachers with the degree of experience, scientific sophistication, and competence that is necessary for the conduct of productive biomedical research and for the research

training of others. This process of inquiry, however, does not take place in isolation. It contributes to and receives a feed-back from the medical education system amidst which it is located. In this process, some researchers become clinicians and some clinicians find careers in research. While some would-be researchers acquire their competence and experience during their training years, others find that their aptitude lies in teaching as well, while still others decide that their metier in life is clinical practice of the particular specialty of their training.

Thus, the very foundation of our system of medical education - one of the world's best - the triumvirate of teaching, research and patient care, derives its strength and quality from this essential mix which is continually renewed and replenished by the training programs I have described.

This system has assured that we no longer have the old, traditional time lag in which the man with new knowledge cannot relate it to the needs of patients or communicate it broadly. In the past, years used to go by before research findings were applied at the bedside. This is changing, and to a large degree because of the modern pattern of teaching coupled with research and patient care which has become the hallmark of our medical schools.

If the training programs of this Institute are allowed to continue to decline, talents vitally needed in the health field will be attracted elsewhere. In view of the designs of some budgeters, in fact, "decline" is too moderate a word. I am told that the Institute's training program may be reduced by millions of dollars to provide funds to be allocated through

another bureau directly to medical school deans. These are fine people and they are undoubtedly in need of funds. To provide these at the expense of well-planned, specific, disease or specialty-oriented training programs of the National Institute of Arthritis and Metabolic Diseases would be most unwise.

The National Institute of Arthritis and Metabolic Diseases is facing a serious dilemma because of the reductions in its budget of the last few years which already have resulted in a significant decrease in Institute activities. The proposed Administration Budget for fiscal year 1972 is no exception; at best it appears to maintain the previous level of activity, but in reality, because of the constantly eroding value of the dollar for reasons of inflation, and because of the well-known increasing cost of carrying out modern biomedical research (which becomes more complex each year), this budget is a retrogressive one which will lead to further decline in the Institute's important activities.

I would like to submit to you herewith a citizens' budget that attempts to replace some of the funds lost to this Institute in recent years. I sincerely believe this is truly a conservative budget which is based on the minimal estimates of what can and must be realized to maintain an adequate momentum of biomedical research and training.

Fiscal Year 1972 Budget Proposed by Citizensfor the National Institute of Arthritis and Metabolic Diseases

	1972 President's Budget (in thousands)	1972 Citizens' Proposal (in thousands)
<u>Extramural Grants</u>		
Research grants.....	\$ 91,491	\$ 107,500
Fellowships.....	5,094	7,250
Training.....	<u>11,475</u>	<u>18,000</u>
Total extramural.....	108,060	132,750
<u>Direct Operations</u>		
Laboratory and clinical research	17,958	18,500
Collaborative studies.....	5,477	8,500
Epidemiology, biometry and field studies.....	949	1,200
Review and approval of grants..	2,572	3,175
Program direction.....	<u>417</u>	<u>600</u>
Total direct operations.....	27,373	31,975
Total.....	<u>135,433</u>	<u>164,725</u>

Mr. Chairman and Members of the Committee, I endorse this proposed budget wholeheartedly and commend it to your attention as a much-needed alternative to the Administration Budget. It is a conservative proposal that recognizes the need for economy in our present situation of financial restraint, but does not provide this economy at the cost of the health of the American people. The key to open the door to better health is in your hands; my colleagues and I and millions of sick urge you to use it. Thank you.

In conclusion I wish to thank you for permitting me to present these facts about the programs of the Institute which bear directly upon the successful execution of its mission.

ROBERT B. BRIGHAM HOSPITAL

PARKER HILL AVENUE
BOSTON, MASSACHUSETTS 02120

J. SYDNEY STILLMAN, M.D.

617-734-5700

ASSOCIATE CLINICAL
PROFESSOR OF MEDICINE
HARVARD MEDICAL SCHOOL

Mr. Chairman and members of the Committee, I should appreciate permission to expand and emphasize some items in the prepared statement.

The magnitude and complexity of the problems in the province of the NIAMD is impressive. Rather than touch lightly all the major areas, I should like to concentrate on the field of arthritis, with which I am most familiar. This can serve as a model.

On the basis of population surveys it is safe to say that there are more than 17 million patients in the United States afflicted with one of the 80 or more types of rheumatic disease. Approximately 4 million people have rheumatoid arthritis. Because of the severity of its symptoms and its capacity for crippling patients, it presents a more serious medical problem than osteoarthritis which forces 5 million of the 40 million afflicted to seek medical help.

The economic losses caused by the rheumatic diseases are as awesome as the figures of incidence. The annual loss of income of arthritic patients because of disability is estimated to be \$1.5 billion. Direct medical costs have been computed to be over \$1 billion.

These statistics should really be staggering in their significance, *I don't believe you would* but ~~would you~~ be bowled over completely if I said the number of arthritics was 18 instead of 17 million, or that the loss in earning power was \$100 million more than the ^{\$1.5} ~~\$1.5~~ billion I mentioned. I doubt it, because huge numbers

have no irritating immediacy, no flesh-and-blood reality. As a physician responsible for caring for arthritics, I find myself quite disturbed by the unit basic to all medical statistics, -- one patient. We should familiarize ourselves with the feeling of illness and fatigue he feels, the pain and stiffness which hamper his movements, his dependency on others, and his feeling of discouragement, even hopelessness, when he realizes that he must cope with this misery for weeks, months, years, or the rest of his life. Get to know one patient intimately and multiply his suffering by 5, 10, or 17 million. Then you will have a true concept of the enormity of the problem.

There are a number of commonly held serious misbeliefs concerning the rheumatic diseases. It is thought that they represent mildly troublesome complaints of the elderly. Actually rheumatoid arthritis begins in the 20 to 50 year age range in 80% of the cases. This is the time when women bear and rear children and have their most productive working years. It hits men during their most fruitful and responsible years. It is not realized that 250,000 children are afflicted with juvenile rheumatoid arthritis. It is not appreciated, even by many doctors, that ^{this} ~~the~~ disease can cause serious, even life-threatening heart disease. Few realize that 10% of these children develop uveitis, an inflammatory complication in the eyes which causes blindness in 25% of those affected. Even osteoarthritis, of which I am sure there are examples in this room, is not simply a disease of aging but, it appears, may be due to metabolic changes in the cartilage which are being studied intensively in several centers.

My interest in these diseases developed when I was a student house officer at the Robert B. Brigham Hospital in 1933 and 1934, during my fourth year in medical school. It was a discouraging and challenging picture. We had few good treatments and not even any good diagnostic tests. The total

research budget for the United States was \$110,000. Meetings of the American Rheumatism Association attracted 40 or 50 members. Fortunately, they had real missionary zeal. They improved teaching and treatment. They were responsible for starting the Arthritis Foundation and contributed in many ways to the NIAMD.

During the past twenty years the support given to training centers and research projects by the Institute has led to better basic understanding of the rheumatic diseases, more extensive and better teaching of medical students, resident staffs ^{in hospitals} and graduate physicians ^{in the community} as well as trainees. This is very gradually leading to the establishment of better facilities and better treatment for arthritics.

Unfortunately, just when the outlook for the rheumatic diseases was encouraging and hopeful, the supporting funds have been decreased by budgetary cuts and inflation. 60% to 65% of approved research projects cannot be funded. Qualified physicians, interested in entering the field of rheumatic disease, cannot find fellowships or traineeships. Some rheumatic disease units, deprived of adequate funds, may have to close. This threatens us with another generation of medical students and residents who will finish their education with a very inadequate knowledge of, and lack of interest in, the rheumatic diseases, convinced that nothing can be done to help this large group of patients. Although the Arthritis Foundation provides 40 fellowships and 10 career development awards and gives 29 center grants, there are more applicants than opportunities ^{Funds for} and the center grants are not adequate. Therefore, the Foundation is in no position to take up the slack. It is essential that the NIAMD budget be increased to a total of ^{\$164} ~~\$80~~ million so that progress in dealing with arthritis and the many other great public health programs covered by this Institute continue.

It must be appreciated that this progress depends greatly on these rheumatic disease centers, initiated and nurtured by grants from the NIAMD during the past twenty years. They train carefully selected young men to be investigators, teachers, and therapists who can take positions of importance in medical schools and hospital centers. Clinical and basic research must be conducted in the training centers, not only for the obvious benefits to be gained in increased knowledge, but also because it provides the stimulating atmosphere for the education of these young physicians. Undergraduate students benefit from the center's teachers. The personnel of the center take part in clinical and teaching exercises in the hospitals and improve the quality of patient care. This is then disseminated when the medical students and residents finish their education and take their places in various academic communities or in medical practice.

Naturally, everyone looks forward to the "break-throughs" in research which will permit us to prevent or cure all of the rheumatic diseases. However, it must be realized that we could make great strides now in relieving human suffering, preventing or putting off disability, and minimizing economic loss if we could generally make available our present knowledge and methods of treatment to all who need them. A study by the U. S. Public Health Service estimated that it would be possible to delay disability in rheumatoid arthritis by 5 years and in osteoarthritis by one.

I hasten to add that the training centers are essential to reaching this objective, since they would have to supply the specially trained physicians. As I have mentioned before, the research support is a necessary ingredient in the post-doctoral training environment. Furthermore,

if an active investigative program were not carried on in the center, it could not attract the quality of applicants we need.

In the beginning I pointed out that I should use arthritis as a model. What I have said about my own special field of interest applies equally well to gastroenterology, cystic fibrosis, diabetes, and all of the other diseases which make up the 10 areas included in the NIAMD. The importance of these problems certainly warrant the budget ^{proposed Citizens' included in} ~~presented by my~~ ^{my prepared statement} ~~of the House, but the House~~. I support it whole-heartedly. I sincerely hope ^{for approval by the Senate,} that this Committee will see fit to recommend it [^] ~~to the Congress,~~ since the responsibility for fostering the attack on these important health problems rests with you.

Thank you very much for giving me the opportunity to appear before your Committee.

INSTITUTE PROBLEMS: ARTHRITIS

Dr. STILLMAN. Then with your permission I would like to expand on some of the points.

Senator MAGNUSON. All right.

Dr. STILLMAN. The magnitude and complexity of the problems in the province of the NIAMD is impressive. Rather than touch lightly all the major areas, I should like to concentrate on the field of arthritis, with which I am most familiar. This can serve as a model.

On the basis of population surveys it is safe to say that there are more than 17 million patients in the United States afflicted with one of the 80 or more types of rheumatic disease. Approximately 4 million people have rheumatoid arthritis. Because of the severity of its symptoms and its capacity for crippling patients, it presents a more serious medical problem than osteoarthritis which forces 5 million of the 40 million afflicted to seek medical help.

The economic losses caused by the rheumatic diseases are as awesome as the figures of incidence. The annual loss of income of arthritic patients because of disability is estimated to be \$1.5 billion. Direct medical costs have been computed to be over \$1 billion.

These statistics should really be staggering in their significance, but I don't believe you would be bowled over completely if I said the number of arthritics was 18 instead of 17 million, or that the loss in earning power was \$100 million more than the \$1.5 billion I mentioned. I doubt it, because huge numbers have no irritating immediacy, no flesh-and-blood reality.

As a physician responsible for caring for arthritics, I find myself quite disturbed by the unit basic to all medical statistics—one patient. We should familiarize ourselves with the feeling of illness and fatigue he feels, the pain and stiffness which hamper his movements, his dependency on others, and his feeling of discouragement, even hopelessness, when he realizes that he must cope with this misery for weeks, months, years, or the rest of his life. Get to know one patient intimately and multiply his suffering by 5, 10, or 17 million. Then you will have a true concept of the enormity of the problem.

There are a number of commonly held serious misbeliefs concerning the rheumatic diseases. It is thought that they represent mildly troublesome complaints of the elderly. Actually rheumatoid arthritis begins in the 20-to-50-year age range in 80 percent of the cases. This is the time when women bear and rear children and have their most productive working years. It hits men during their most fruitful and responsible years. It is not realized that 250,000 children are afflicted with juvenile rheumatoid arthritis. It is not appreciated, even by many doctors, that this disease can cause serious, even life-threatening heart disease. Few realize that 10 percent of these children develop uveitis, an inflammatory complication in the eyes which causes blindness in 25 percent of those affected. Even osteoarthritis, of which I am sure there are examples in this room, is not simply a disease of aging but, it appears, may be due to metabolic changes in the cartilage which are being studied intensively in several centers.

My interest in these diseases developed what I was a student house officer at the Robert B. Brigham Hospital in 1933 and 1934, during my fourth year in medical school. It was a discouraging and challenging

picture. We had few good treatments and not even any good diagnostic tests. The total research budget for the United States was \$110,000. Meetings of the American Rheumatism Association attracted 40 or 50 members. Fortunately, they had real missionary zeal. They improved teaching and treatment. They were responsible for starting the Arthritis Foundation and contributed in many ways to the NIAMD.

During the past 20 years the support given to training centers and research projects by the Institute has led to better basic understanding of the rheumatic diseases, more extensive and better teaching of medical students, resident staffs in hospitals and graduate physicians in the community as well as trainees. This is very gradually leading to the establishment of better facilities and better treatment for arthritides.

Unfortunately, just when the outlook for the rheumatic diseases was encouraging and hopeful, the supporting funds have been decreased by budgetary cuts and inflation. Sixty to sixty-five percent of approved research projects cannot be funded. Qualified physicians, interested in entering the field of rheumatic disease, cannot find fellowships or traineeships. Some rheumatic disease units, deprived of adequate funds, may have to close.

This threatens us with another generation of medical students and residents who will finish their education with a very inadequate knowledge of, and lack of interest in, the rheumatic diseases, convinced that nothing can be done to help this large group of patients. Although the Arthritis Foundation provides 40 fellowships and 10 career development awards, and gives 29 center grants, there are more applicants than opportunities and funds for the center grants are not adequate.

Therefore, the foundation is in no position to take up the slack. It is essential that the NIAMD budget be increased to a total of \$164 million so that progress in dealing with arthritis and the many other great public health programs covered by this Institute continue.

It must be appreciated that this progress depends greatly on these rheumatic disease centers, initiated and nurtured by grants from the NIAMD during the past 20 years. They train carefully selected young men to be investigators, teachers, and therapists who can take positions of importance in medical schools and hospital centers. Clinical and basic research must be conducted in the training centers, not only for the obvious benefits to be gained in increased knowledge, but also because it provides the stimulating atmosphere for the education of these young physicians. Undergraduate students benefit from the center's teachers. The personnel of the center take part in clinical and teaching exercises in the hospitals and improve the quality of patient care. This is then disseminated when the medical students and residents finish their education and take their places in various academic communities or in medical practice.

Naturally, everyone looks forward to the breakthroughs in research which will permit us to prevent or cure all of the rheumatic diseases. However, it must be realized that we could make great strides now in relieving human suffering, preventing or putting off disability, and minimizing economic loss if we could generally make available our present knowledge and methods of treatment to all who need them. A study by the U.S. Public Health Service estimated that it would be

possible to delay disability in rheumatoid arthritis by 5 years and in osteoarthritis by one.

I hasten to add that the training centers are essential to reaching this objective, since they would have to supply the specially trained physicians. As I have mentioned before, the research support is a necessary ingredient in the postdoctoral training environment. Furthermore, if an investigative program were not carried on in the center, it could not attract the quality of applicants we need.

In the beginning I pointed out that I should use arthritis as a model. What I have said about my own special field of interest applies equally well to gastroenterology, cystic fibrosis, diabetes, and all of the other diseases which make up the 10 areas included in the NIAMD. The importance of these problems certainly warrant the proposed citizens budget included in my prepared statement. I support it wholeheartedly. I sincerely hope that this committee will see fit to recommend it for approval by the State, since the responsibility for fostering the attack on these important health problems rests with you.

Thank you very much for giving me the opportunity to appear before your committee.

Senator MAGNUSON. Thank you, Dr. Stillman.

Dr. STILLMAN. Thank you, Mr. Chairman.

NATIONAL INSTITUTES OF HEALTH

STATEMENT OF DR. JAMES A. CLIFTON, PROFESSOR AND HEAD OF THE DEPARTMENT OF INTERNAL MEDICINE, UNIVERSITY OF IOWA

HEALTH RESEARCH FUNDING

Dr. CLIFTON. Thank you, Senator. I am pleased to be here today. I thank you for your attention.

I am currently, Senator, a member of the National Advisory Council of the Arthritis Institute and I am chairman of the Department of Medicine at the University of Iowa School of Medicine.

When we were waiting to testify this morning several of our colleagues were here with us to show their support of the mission of the Institute. Among those were Dr. Butt, who repaired a digestive section at the Mayo Clinic and currently president of the American College of Physicians. Also there was Dr. Nicholas Hightower, the current president of the American Gastroenterology Association.

I wish I could be the first witness you have on these hearings to tell you I was satisfied with the appropriations for the organization I am interested in but, unfortunately, I can't do that.

Senator MAGNUSON. I suppose when that day comes in the health field I had better quit.

Dr. CLIFTON. I cannot do it for two reasons: One is my conscience won't let me and the second one, you would think I was crazy. So, I will have to proceed.

I have a deep concern over the budget proposed for the NIH by the administration. I am afraid we may be mortgaging the future health of our citizens by restricting research in the health field. Most of us as reasonably well informed citizens know the fiscal plight that you and your committee face, the plight that faces our whole country.

The needs are infinite. The resources are finite. But of all things that determine the destiny of our country, surely the health of our citizens is at the top of the list. Physical, mental, environmental, and social health are the rocks upon which the effectiveness of our citizenry is built.

In spite of the fiscal pressures, I believe we just give top priority to health, health now through better delivery and health in the future through research.

Like you, Senator, I wear a number of hats. One of these and the one that gives me the most headaches, is being chairman of the department of medicine in a large medical school. If you will bear with me just a moment, I will tell you a little bit about our department of medicine because it is relevant to the mission of the Arthritis Institute.

The department of medicine is the key department in any school of medicine. It is the largest, the most complex and the most expensive. It teaches more students, touches more patients and does more research related to disease than any other department. It is the core department around which the teaching programs are built. In the future it will be heavily involved in the teaching of family physicians.

In the department students learn about arthritis, diabetes, digestive disease, kidney disease, disorders of the endocrine glands, nutrition, and metabolic diseases. The functions are broad and diverse.

Now I hope that that list of functions sounds familiar to you because they are part of the mission of the Arthritis Institute. Add to this orthopedics and diseases of the skin and you have the many related areas of the Arthritis Institute.

This tremendous breadth of responsibility is not matched by any other Institute. As the department of medicine is the key department in the college of medicine, so the Arthritis Institute is the key to the department of medicine.

While the tremendous diversity of responsibility is at one time the strength of this Institute, it is also the weakest. I believe that it gives a blurred image to the public for the mission of this Institute and it is difficult for people to focus on what is the true mission.

I hope that you gentlemen of the subcommittee will earnestly think about the terribly diverse and important mission of this Institute as you contemplate the funding situation.

I would like to mention specifically two or three of the important areas carried on by the Institute. One of these is digestive disease and nutrition. I myself am a specialist in the digestive diseases and I am immediate past president of the American Gastroenterology Association. Digestive diseases affect some 30 or 40 million of our citizens at an estimated cost per year of over \$8 billion. Leading among these diseases are peptic ulcer, which affects some 10 to 15 percent of the population; cirrhosis of the liver, which is the third leading cause of death among males over the age of 35; and gallstones, which affect millions of our people.

Recently, Senator, there have been important research advances in all of these fields supported by the Arthritis Institute. In recognition of the importance of these disorders Dr. Wheaton, Dr. Burton and other leading administrators of the Institute have established a position as Assistant Director of the Institute for Digestive Diseases and Nutrition.

In order to make this a meaningful position and to give support that this great area needs, this new man will certainly have to have new funds in order to carry out the program. It seems to me clearly that a minimum of \$2.5 million is needed in digestive disease in addition to what is currently there in order to carry on the program, and a total of \$5 million is needed in order to allow this new man to proceed as he should.

Senator MAGNUSON. What could be done with additional funds for gastroenterology research, and how much would be needed?

Dr. CLIFTON. As this is my own area of specialty, I can tell you that very promising opportunities abound. I mentioned that the synthesis of gastrin now provides a research compound that could well lead to control of excess gastric acids and of peptic ulcer. There are equally hopeful avenues toward prevention or control of gallbladder diseases, cirrhosis of the liver—a leading cause of death in our population—and numerous other digestive disorders. This field of gastroenterology has been much neglected, as I am sure you know, and the inroads of inflation have reduced even the limited funds available. Scientific advisory groups at the NIH have approved many potentially valuable investigations here, but about 55 percent of those approved have not been activated because of insufficient funds. A start could be made simply by restoring the 1969 level of support; that is, replace the lost purchasing power of the dollar for research. Increasing the appropriation for studies in gastroenterology by approximately \$4 million would check this recession in digestive disease research support and should permit the Institute to conduct investigations in some of the more promising new fields of gastroenterology.

Senator MAGNUSON. Dr. Clifton, what other areas do you feel could benefit particularly by restoring funds lost through fiscal attrition?

Dr. CLIFTON. Two of the main areas are research on arthritis and on kidney diseases. An addition of \$2 million to \$2½ million would restore arthritis research to its 1969 level. I understand that at present there have been across-the-board reductions in grants to investigators in this field, for which the Institute is a primary source of support. At the same time, more than half of all approved applications for support now go unfunded. As the immunologic basis of certain arthritic diseases is being demonstrated, this area should receive particular attention and support. The kidney diseases also merit special concern because thousands of Americans still die—often needlessly—of kidney failure. We must rapidly expand our efforts, particularly in kidney transplantation, now one of the most frequently performed and successful procedures, and in the fundamental research that will improve our understanding of basic mechanisms in kidney diseases. The latter enterprise promises to lead to outright prevention of some of these kidney disorders. The Institute's programs here need an additional \$4 million just to regain losses incurred during the past 3 years.

Senator MAGNUSON. I believe you commented that diabetes remains a puzzle even though several million of our people are afflicted. Do you think an increase in the appropriation would bring answers to this problem sooner?

Dr. CLIFTON. I believe there is no question about it. I don't like to ask for increases in a time of budget difficulties, but an addition of perhaps \$4 million would be moderate. Even the restoration of about \$1½

million lost through inflation since 1969 would keep up the momentum. Insulin therapy has helped, but we still do not know how to check many of the long term and serious consequences of diabetes. Investigators now are getting down to the molecular level and have learned a great deal about the structure of insulin and about some of the fundamental mechanisms of this disease. As for insulin therapy, several groups have begun to work on a method of imitating the body's own introduction of insulin into the bloodstream. With sufficient support, perhaps through contracts, we are hopeful that within a few years an electronic sensor of blood-sugar levels and an implanted insulin-supplying device activated by the sensor will make administration of insulin a precise and easy procedure. Grant-supported studies in all areas of diabetes research have suffered from decreasing support. I understand that nearly 60 percent of grant applications in diabetes approved by largely non-Federal reviewing groups now cannot be funded. This is certainly one area that should be supported to the best of our ability.

Senator MAGNUSON. I believe that one of the reasons we have not reached all of our goals for public health has been an inadequate supply of trained biomedical scientists. You mentioned this shortage in your testimony. Would additional funds correct this manpower deficiency?

Dr. CLIFTON. I mentioned an acute shortage of people trained in the specialties underlying the digestive diseases, and this is likewise the case in several of the basic medical categories that are the responsibility of the National Institute of Arthritis and Metabolic Diseases. The training programs of this Institute not only are germane to the practice of medicine but are recognized as an outstanding success story in contributing to the generally high quality of American medical education. Fiscal attrition, however, has forced this Institute to make a 10-percent cut in each of its training grants, and, even then one of every three training projects approved because of its high quality and pertinence to public health has had to be turned away because of lack of funds. An additional \$3 million in the Institute's appropriation for training would bring this program back to its 1969 level.

Now, I should like to mention diabetes. Millions of our citizens are affected with this disease. There is new information on the horizon about the mechanisms of insulin secretion, giving hope for improved method of treatment. I am sure you are aware of the controversy which has arisen about the use of orahyperglasene and we must again turn to insulin as a source of treatment.

Lastly and in the disease category, I should like to touch upon something you just mentioned and that is kidney disease.

Senator MAGNUSON. You mean the oral is not effective?

Dr. CLIFTON. No, sir.

Senator MAGNUSON. It is not at all?

Dr. CLIFTON. Recent studies supported by the Institute have shown that orahyperglasene may have a deteriorating effect on the cardiovascular system.

Senator MAGNUSON. Have the doctors quit giving oral?

Dr. CLIFTON. No, sir; but the physicians who specialize in this area, and I do not, but those who do are looking at it very cautiously and

are reassessing the entire situation. It gave great hopes, as you know, at one time, but this other development has arisen now.

Senator MAGNUSON. But if the side-effects were minimized, the oral would be effective?

Dr. CLIFTON. Correct.

Senator MAGNUSON. It is the side-effects you are talking about?

Dr. CLIFTON. That is correct. The kidney program you are well acquainted with. It is continuing to progress. The new artificial kidneys have been developed that are small, inexpensive, and can be used in the home.

As the last area I would like to make mention of training, training programs of teachers of medical students in established schools in the Institute. The shift of \$3.6 million from the Institute to be given to the dean's office of medical schools is potentially damaging.

I hope that this trend can be reversed.

In conclusion, I would ask that the members of the subcommittee give special attention to the National Institute of Arthritis and Metabolic Diseases, paying particular attention to its extremely broad and diverse functions. I support, as do my colleagues who were here this morning, the citizens' budget presented a moment ago. I trust that the subcommittee will give its earnest thoughts to it.

Thank you very much.

(The prepared statement follows:)

My name is James A. Clifton, and I am a Doctor of Medicine, having obtained my degree from Vanderbilt University Medical School. I am Professor and Head of the Department of Internal Medicine, University of Iowa, having been affiliated with the University's Department of Medicine since 1953 when I was Chief of the University's Division of Gastroenterology. I am currently a consultant to the Iowa City Veterans Administration Hospital.

I am accredited by the American Board of Internal Medicine, with a Subspecialty accreditation from the American Board of Gastroenterology. I am currently a member of the specialty board of Gastroenterology and am immediate Past-President of the American Gastroenterology Association; I am also currently chairman of the Gastroenterology Training Committee for the Veterans Association.

I have been familiar with the activities of the National Institute of Arthritis and Metabolic Diseases for a number of years and serve as a member of the National Advisory Arthritis and Metabolic Diseases Council. I have served, as well, as an NIM consultant and chairman on the Gastroenterology and Nutrition Training Grants committee.

I am a former Special Research Fellow in the U. S. Public Health Service at NIH, and a Fellow in Medicine - in Gastroenterology - at the Evans Memorial Hospital in Boston, during the same period. I have also served as a member of the Editorial Board of "Gastroenterology".

I am active in a number of scientific and medical societies, including the American Association for the Advancement of Science; American College of Physicians; American Federation for Clinical Research; Society for Experimental Biology and Medicine; and American Physiological Society.

Mr. Chairman and Members of the Committee: I am grateful for the opportunity to testify today because I recognize your efforts epitomize the humanitarian aspect of our national government and its concern for our people; indeed for people the world over. Our country today is in a better position to do more than ever before to advance the national well-being. In sheer dollar terms health has become the second largest industry in the U. S., last year turning over \$67.2 billion - or 6.9 percent of the GNP.

Yet, ironically, the health industry of past years has been forced to spend a lower percentage of its gross sales on research than the defense industry and other less vital basic and service industries.

I am dismayed to learn of the reductions in the funding of Institute activities. The considerable progress made in the past 10-15 years in dealing with diseases heretofore thought to be incurable or untreatable, can be attributed directly to fundamental laboratory studies in disciplines such as biochemistry, molecular biology, genetics, enzymology, and others. Strong emphasis has been placed by NIH on the conduct and support of research

into these fundamental sciences, because they comprise the basis for all medical knowledge. Turning off support turns researchers in other directions.

Someone once described basic biomedical research as self-accelerating; one discovery opens ten or twenty doors. Reducing support closes the doors.

Many of these doors could be fully opened through the efforts of the National Institute of Arthritis and Metabolic Diseases. These efforts, combined with support of the Committee, will continue to meet health problems of the nation.

For many years, both as a medical educator and gastroenterologist, and through my association with the Institute, I have been privileged to witness the highly stimulating effect of the Institute's programs for research and training for research. The scope of the Institute includes arthritis and diseases of metabolism, such as diabetes, disorders for which the Institute was originally established. The activities of the Institute have since continued to expand. The other major areas now include diseases of the digestive tract such as peptic ulcer; many hereditary diseases, such as cystic fibrosis; endocrine gland disorders; bone, blood, liver disorders; urological and kidney disorders, orthopedic and dermatology disorders.

In this past year, numerous important findings have evolved from new research efforts into digestive diseases, my own area of specialty and concern. The Institute has recognized the impact and importance of

digestive diseases by designating an Assistant Director for Digestive Diseases and Nutrition. A new Liver Disease unit is to be organized soon in the Clinical Center at NIH, along with a gradual expansion for the Intramural Digestive and Hereditary Diseases Branch in which Institute scientists conduct clinical and laboratory investigations into some of the more debilitating abnormalities of the esophagus, stomach, small and large intestines, pancreas and liver. Along with grant supported investigators, Institute scientists are trying to find corrective measures and eventually, cures for such gastrointestinal tract ailments as peptic ulcers, which strike at least 10 percent of all adults in the United States at some time in their lives; regional ileitis, ulcerative colitis, and gallbladder disease, which includes the gallstones carried by about fifteen million Americans. These disorders, along with cirrhosis of the liver, the fourth most common cause of death in adults in the United States, intestinal malabsorption, and pancreatitis, comprise major or contributing causes of hospitalization for more than five million people each year and cost the national economy an estimated eight billion dollars.

At this time, I would like to review briefly a few of last year's research accomplishments by grant-supported investigators. One such advance is the synthesis of gastrin, a hormone that stimulates secretion of gastric juices. Not long ago, other grant-aided investigators showed that anti-gastrin antibodies produced in rabbits inhibited the secretion in rats of endogenous gastrin, and consequently, of gastric acid. These findings and others currently being investigated, many provide a new approach to the treatment and prevention of peptic ulcers.

Another highlight from this past year evolved from the Institute's epidemiological studies among Indians of the Southwestern United States. During these surveys, it was observed that members of the Pima tribe, living along the Gila River near Phoenix, Arizona, not only have an incidence of diabetes 10 to 15 times the national average - and this phenomenon is being studied separately - but also suffer from a very high prevalence of gastrointestinal disease. Gallbladder ailments, for example, were found six times more prevalent in the Pimas than in other populations.

Preliminary Institute studies have established that one half of all young Indian women will have gallstones and/or gallbladder disease or both by the time they are thirty years old. The Institute has established a team to explore the reasons for this high rate of gallbladder disease so that important clues to the causes of these maladies in all persons can be studied. The Indians, of course, are benefitting from this work and are cooperating with the investigators.

From recent studies has emerged a new concept of how cholesterol gallstones are formed, and the Pima Indians will be aiding in confirmation of this theory. The new concept is based on a finding which indicates that the formation of cholesterol gallstones is probably due to secretion, by the liver cells, of bile abnormally high in a cholesterol which exists in such a supersaturated state that it later precipitates out in the gallbladder. This finding points to the liver, rather than to the gallbladder, as the origin of the disease, channeling research efforts into a completely new direction. If this is proved finally to be the mechanism,

it may be possible to use some kind of bile salts or lecithin, normal cholesterol solubilizing agents, to normalize bile composition and prevent such stone formation.

I shall mention one more study enlisting Indian cooperation. Infant diarrhea, a world-wide problem, are particularly prevalent among some of the tribes. The Institute's past overseas experience in helping to control Asiatic cholera - the most devastating diarrhea of all - provides invaluable expertise, with Indian participation. New field studies are getting under way in Arizona at Fort Apache in the White River area. I understand that the contract mechanism, which seems a very effective way of undertaking targeted research, is being employed to enlist the aid of Johns Hopkins University scientists who are experienced in cholera control, for this study.

There are many other promising areas of research, and I would like to summarize them, but I feel you would benefit rather from my touching on the tremendous influence the Institute has exerted on the field of arthritis and metabolic diseases.

The cause of arthritis, the nations' most prevalent crippling disease, is yet unknown, although a vast amount of basic information on immunological and infectious mechanisms has been assembled by Institute scientists and grantee researchers. Today two main theories see the disease as an end result of either a disorder of immunity in which the body directs antibodies against its own tissues, or of a virus infection.

This past year, for example, various transmissible agents have been found in close association with rheumatoid arthritis, although it is still not possible to state that any particular one of them is causative. One strain of a suspected group of infectious organisms, the mycoplasmas, have been found to cause arthritis in mice and may provide a model for studying the arthritogenic properties of this group of microorganisms. Most recently, the Australia antigen, a virus-like particle first isolated in Institute laboratories and originally investigated as a hepatitis associated virus, has now been linked with arthritic disease.

The hypothesis that rheumatoid arthritis is an immune disorder is based primarily on observations that violent immunological reactions within the body, possibly initiated by invading foreign substances, can cause the type of inflammatory lesions found in the disease. Isoantibodies, mistakenly attacking components of the body's own tissues as though they were foreign invaders, are suspected of initiating the chain of events which ultimately results in rheumatoid damage. Numerous studies are now seeking clarification of these various mechanisms in rheumatoid arthritis. Equally important is development of improved drug therapy, and to this end drugs that suppress the immune response in humans are being tested against this form of arthritis.

A grantee supported investigator has treated rheumatoid arthritis patients with oral doses of L-histidine. Some patients showed significant improvement. Individuals' responses to drug therapy differ but as the number of drugs developed through research increases so does the number of patients who can benefit.

This past year also has been a highly productive one in diabetes research, and I would like to add some observations concerning this area of investigation.

As you know, diabetes is a complex metabolic disorder for which there is no known cure, and which ranks high on the list of disease that causes death. The current estimates - that there are approximately four million diabetics in the U. S. alone, and another five million who are potential diabetics - are staggering indeed.

Although the research of recent years has yielded important information about the disease process and valuable new methods of treatment, basically, diabetes still remains an enigma - much as rheumatoid arthritis remains. The staggering estimates of those afflicted with this disorder add great dimensions to even the smallest of research findings.

This past year an Institute-supported scientist clarified the role played by amino acids in stimulating insulin secretion. Both protein ingestion and amino acid infusion are known to stimulate insulin secretion in man, but whether the mechanism is direct or is mediated through another source was unclear. Now studies have suggested that the effects of the amino acids on the insulin-producing cells, or the beta cells, of the pancreas is a direct one. The amino acid concentration in the pancreas may be as important as glucose concentration in the regulation of insulin secretion. Previous evidence had favored the idea that glucose concentrations in the pancreas control insulin release.

Unfortunately, time will not permit me to cite research achievements in detail of the past year in other areas of Institute responsibility, such as I have mentioned in digestive diseases, arthritis, and diabetes. Two other significant developments, however, should be pointed out.

Based on their strategy on an Institute scientist's molecular theories of red blood cell sickling, Institute supported grantees have devised and apparently applied successfully a new treatment which aborts the sickle cell anemia crisis and temporarily blocks further sickling. As you know, this disease of black people was mentioned in the President's message to Congress. The new treatment represents one of the first instances in which a molecular therapeutic strategy has been successfully devised on purely theoretical grounds.

Continued improvements in kidney transplantation techniques, in applied research related to intermittent hemodialysis by artificial kidneys, and by intermittent peritoneal dialysis with new recycling machines have produced major life-saving methods for patients with terminal kidney failure.

These are just some of the dividends emanating from Institute activities. Many of these achievements are significant illustrations of the ultimate value of basic research, eventually transmitted to the doctor at the patients' bedside.

There is, Mr. Chairman, an urgent and continuing need to expand these research investigations and activities not only from the standpoint of alleviating the suffering of the millions afflicted by these and other diseases but also to further the concept of preventive medicine. The more basic knowledge we obtain through research about normal life processes and the factors that create disease conditions, the more effective medical means can be developed to minimize or prevent diseases and their effect on the human body.

At this time, Mr. Chairman, I would like to touch upon another aspect of research for better health, and that concerns sufficient funding.

The situation at this time borders close to catastrophic for new biomedical research. Current research projects are moving downhill because of financial cutbacks in medical efforts, just when these projects could have attained a productive momentum.

Biomedical research is such that it requires about an 8-15 percent yearly increase to keep it moving. Yet when there is imposed a cutback of similar dimensions coupled with increased cost of doing biomedical research and loss due to the annual shrinkage of the purchasing power of the dollar, we court disaster. It is further folly to believe that research should be stabilized merely by keeping funding at a level rate.

I hope that you will understand my preoccupation today with this severe reduction which I believe constitutes a false economy which may very well return to haunt us.

Mr. Chairman and Members of the Committee, important advances against disease and disability will be made as long as the National Institute of Arthritis and Metabolic Diseases is able to continue full momentum in research. This Committee has made gratifying increases in the Institute budget in past years and I entreat you to do likewise this year. I am quite familiar with the past and present programs of the Institute, and I know what its financial needs are. I am familiar also with the Administration's proposed budget for this Institute, and I believe that an overall increase in operating funds is vitally needed and warranted, keeping frugality in mind, to carry out its mission.

I am extremely anxious about one of the most fruitful programs of this Institute, the support of research training of young biomedical

scientists in the fields of concern to the Institute. In the allocation of funds for biomedical research, prudent consideration should surely be given to this equally vital component of a national research program in the health sciences.

The programs of training grants and fellowships which have been maintained by the Institute, are designed to help alleviate the serious shortage of scientific manpower which could eventually dilute the high standards of excellence and productivity now characteristic of those engaged in modern day biomedical research. This serious shortage is reflected in the fact that while digestive diseases rank second only to disorders of the heart and circulation in number of physician office visits or house calls, there are fewer than 1,500 physicians in this country specializing in this field.

I feel strongly against the proposed transfer of several million dollars from NIH training programs to another bureau which would pass the funds along to several medical school administrators. While it may correct the medical school's deficit somewhere on the budget, it may eliminate the specialized training programs that the country has depended upon for skilled academic professors in the medical fields. The NIAMD has supported these training programs for many years. If they are eliminated it will be impossible to turn out enough specialized physicians, and more teachers and researchers, to keep pace with the chronically ill of this country.

I would like to state emphatically that the figure for training needs an upward revision in order to assure an adequate corps of well trained scientific manpower to deal with complex changing circumstances of the future. Needless to say, it is crucial that these funds be restored to the Institute budget through action of this Committee.

My colleague, Dr. S. Sydney Stillman, has submitted a Citizen's Budget which, I believe, meets more adequately the minimal needs of this Institute. I commend it for the earnest consideration of the Committee for I feel the increases are highly justified. To carry out and manage the job properly, the National Institute of Arthritis and Metabolic Diseases also requires a minimum of 15 additional positions. At present the Institute is severely handicapped in fulfilling its mission because of a shortage of authorized personnel. I hope this Committee will act now to provide the Institute with its ammunition for the war on disease.

Mr. Chairman and Members of the Committee, again I appreciate your continued interest and support, and the privilege of testifying here today.

Senator MAGNUSON. For the record, the Institute had \$134,525,000 in 1971. The budget estimate was \$135 million, just a million dollars up.

Dr. CLIFTON. The funding level of 1967 is where it puts the Institute. When you consider the rise in cost, we are 30 percent behind where we were.

Senator MAGNUSON. We have in this committee over a period of years applied to the Institutes a percentage increase. It has usually ended up with about 5. Then we get to conference. If we get 4, we are lucky—or 3.

You say in your statement that actually, like Alice in Wonderland, you have to run like the devil to stay where you are. It should be about 8.

Dr. CLIFTON. Yes. I think sitting on the Council, Senator, and watching these grants come across, really topflight applications, by a good man of proven ability.

Senator MAGNUSON. We get a little flak doing this because people are dedicated to one program or another, and the priorities may become a bit controversial. It shouldn't be, but it is. You can't get away from it.

At one time, Senator Cotton and I thought instead of upping the budget amounts, we might add a total sum of \$50 million or something like that, a flexible amount, and give it to the Director to use for special breakthroughs that might appear. But strangely, they didn't want it. They didn't want the responsibility of doling it out.

It became a little bit difficult. So we abandoned that idea. I guess we will have to go ahead and look at these things like we have in the past and include the Institutes you are talking about and see what we can do. They are just standing still from last year, at best.

Dr. STILLMAN. Not really. It is going backward.

Senator MAGNUSON. Allergy is the same. Why, they cut back on general medicine, which is a broad subject. That is down. All of them are about the same except the extra-special effort we made on cancer research.

So we will take a look at all this. We are going to have the Institute people up the first of the week. I like to hear the outside people first, and then I have a better set of questions to ask the fellows running it.

Every time I look at these big figures, I am more impressed with them than maybe I should be, because the first bill I passed in Congress established the Cancer Institute in 1928. The first bill I passed as a Member of the House, I got the big sum of a million dollars to start.

Mrs. Wilson, who had the property out there in Bethesda, donated the land. Then NIH just grew all around it. I got \$1 million, but it was not so much then the argument about the money as the opposition to the Federal Government getting into health research at all.

So sometimes I do go home and feel we have made some progress.

Dr. CLIFTON. It is tremendous progress.

Senator MAGNUSON. That should not stop us from doing more.

Dr. CLIFTON. For instance, about gallstones. We have known gallstones for centuries, yet we had no idea what causes gallstones. Recently in the last 2 or 3 years, grantees of the Arthritis Institute have found a significant difference in the composition of bile in people who have gallstones and those who don't.

One of the investigators has found that by altering the kind of diet you can feed a patient or feeding some people bile salts, you can change the bad bile back to good bile.

Senator MAGNUSON. Is there anything to the contention of a lot of people who suffer from arthritis that they feel better in a hot dry climate?

Dr. STILLMAN. Yes, this is true.

Senator MAGNUSON. At least they say so.

Dr. STILLMAN. Oh, yes. I don't think there is any question about that. As a matter of fact, a doctor in Philadelphia who controlled all elements of the environment in a sort of "yellow submarine" in the basement of a hospital was able to show that there were two factors, one, a falling barometric pressure and rising humidity that made 70 percent of the patients worse who were spending time in this chamber.

Senator MAGNUSON. Gentlemen, we thank you. I would like to talk with you more, but the hour is getting late and we have to get this bill on the way.

Let us hear Dr. Seegmiller, first, because he comes from a long way and he has to get back.

NATIONAL LIBRARY OF MEDICINE

STATEMENT OF DR. DONALD A. WASHBURN, PAST PRESIDENT, MEDICAL LIBRARY ASSOCIATION

PREPARED STATEMENT

Dr. Seegmiller will be next. The only other witness I have listed is Dr. Washburn. Is he still here?

Dr. WASHBURN. Yes.

Senator MAGNUSON. Do you want to do the chairman a favor?

Dr. WASHBURN. Surely.

Senator MAGNUSON. Put your statement in the record because we discussed it at great length with Luther Terry yesterday. I think I know what you are talking about. I think the committee does.

We will try to do something about it.

Dr. WASHBURN. All right, sir. I have turned in the copy.

(The statement follows:)

Mr. Chairman and Members of the Subcommittee:

My name is Dr. Donald A. Washburn of Chicago, Illinois. I am immediate past president of the Medical Library Association, an organization which has fostered the development of health sciences libraries for seventy-three years. It now has a membership of 2,500, including 200 in foreign countries. It is the core group concerned with the transmission of health science information to the researcher, student, practitioner and to the ultimate consumer in this field, the public.

I am also director of the Bureau of Library Services of the American Dental Association which has offered its members library service for forty-four years. This library, besides serving its 112,000 members and ancillary dental personnel, has been an active participant in the regional medical library programs of the National Library of Medicine since the formation of the Midwest Regional Medical Library in 1969 after taking part in its organization.

The Medical Library Association has had a long and mutually beneficial relationship with the National Library of

Medicine. Its members and member libraries have been actively interested in its development into a truly national library.

Our Association wishes to express its unqualified support of an appropriation of \$25,000,000 for the National Library of Medicine which is \$3,500,000 more than the President's budget. We do so with the knowledge that the times and conditions require the decisions of a Solomon in the determining of appropriations. But we do so knowing what has been accomplished by the National Library of Medicine and under the Medical Library Assistance Act, and with the firm conviction and awareness that the outreach capabilities of the Library and of the regional medical library network have not yet been developed to the point where they meet existing and developing needs. I greatly appreciate the opportunity of affirming this before you. I do so on information accorded me by my colleagues and from my own observations.

There are other groups similar to the American Dental Association, such as the American Medical Association and the American Hospital Association, which have developed information resources for service to their specialized communities. While in total these are substantial activities, their value is greatly enhanced by the backup they find in the collections of the largest of the world's medical libraries, the National Library of Medicine,

and in its programs. The same can be said for the nation's, and indeed for the world's, medical, dental, pharmacy, nursing schools, hospital libraries and the other organizations serving the health care of the people. Nor are these institutions and groups indebted alone to the Library's collections of books, periodicals and other materials.

There are the services the Library provides such as the tremendous bibliographical tool, the Index Medicus, and the MEDLARS program with its searches in the literature and its recurring bibliographies. One of these bibliographies, the Index to Dental Literature, founded and supported for fifty years by the dental profession has been published in cooperation with the National Library of Medicine since 1965. These basic tools are without parallel in the health services information field. Each day people numbering literally in the thousands depend upon the currency and comprehensiveness of these two services alone.

The importance of the position held by the Library was distinctly recognized, it seems to me, in 1965 and in 1970 with the passage and extensions of the Medical Library Assistance Act. From this Act has come a manifold increase in resources, services and personnel. Even more would have been accomplished if these programs had been fully funded. It is of first importance that

these steps forward are not lost.

One of these steps, an outstanding example, was the establishment of eleven regional library systems. These now cover the entire nation and have been coordinated with other programs of HEW such as the programs on heart, cancer and stroke. When the services developed by the regional medical library systems have been made known to the health practitioners in areas not previously supplied with adequate library service, the response has been most worthwhile. Now, however, the activities of the regional medical library program are having to be reduced because of budgetary restrictions, with the predictable effect on the handling of information--an increasing number of requests for assistance must be declined because of lack of library resources to search and refer to and lack of staff to process the requests. In short, the library network is now faced with greater demands than it can readily meet.

As an example, we may look at interlibrary loan service by which the resources of a library are made available to other libraries. Because of lack of money, there has been a limiting of the outreach capabilities of the regional medical libraries in filling interlibrary requests. Previously these libraries tried to fill all requests. This is now not possible to do for the more

esoteric and harder-to-obtain materials because, relatively speaking, too much time and money are required to apply to a number of libraries for them; needed though they may be. In theory, such requests may be passed on to the National Library of Medicine; however, if that Library is not maintained in a condition to cope with such demands, there is likely to be little economy in this transfer of activity while frustration and wasted efforts increase.

In addition to the restrictions on interlibrary loans, there has been the necessity of setting up quotas for MEDLARS searches. Although the searches are intended to disclose to health science personnel what is presently known on a particular subject, this curtailment under present conditions is understandable. It is hardly desirable on the other hand. For it is the health scientist, who does a better job when he is better informed, who must now learn to accept less service than he has come to depend upon.

Of great importance also has been the Resources Grants Program which has permitted hospitals without libraries, without health information resource, or with only rudimentary libraries, to start and to develop them. This excellent program is now suffering because of inadequate funding. Hospitals that would

like to be able to start libraries, to have information facilities available for their physicians, nurses, and technicians are now unable to do so. Funds had not even been made available in all regions for this program when it became necessary to curtail the number of training scholarships offered. Such scholarships have in recent years provided an increasing flow of professional educated personnel in health science communications.

In closing, I would like to reiterate our Association's support of those means which provide the bases for the improvement of library service and medical communication to the researcher, the student, and the practitioner and his patient--among those bases being adequate library collections, continuing education through training sessions and workshops, expansion of facilities and personnel and particularly those programs spearheaded by the National Library of Medicine and the Medical Library Assistance Act. I am grateful for the privilege of appearing before you in support of these appropriations.

STATEMENT OF J. EDWIN SEEGMILLER, PROFESSOR, DEPARTMENT
OF MEDICINE, UNIVERSITY OF CALIFORNIA, ON BEHALF OF
THE NATIONAL GENETICS FOUNDATION

HEREDITARY DISEASES : GENETICS CONTROL

Dr. SEEGMILLER. My formal report is in the record. I will go over some areas of emphasis. I welcome this opportunity to discuss with you the implications and new developments in genetics for the control in the future of human hereditary diseases. This presents new opportunities which, if they are grasped and implemented at this time, could launch a whole field of medicine into a renaissance for the control and treatment of this serious group of diseases, all with substantial savings in the overall cost of health care.

We have reached the point of additional payoff in terms of improved medical care for the investment in the basic research in the field of biochemistry and genetics that has been made over the past 2 decades by this and other sections of the committees.

Now for over 20 years I participated as a physician in research on hereditary diseases, first at NIH and then at our Nation's newest medical school, the University of California at San Diego. I have been in the enviable position of observing first-hand the end result in the lives of our fellow man of this investment in medical research. I would like to share with you today some of these moving experiences, to outline for you some of the recent solid achievements in control of serious genetic diseases that have produced substantial savings in cost of health care.

Hereditary disease, which first saw hopeless afflictions that stunt the growth of the body and constrict the development of the mind for which we could provide only palliative treatment or institutional care, have been transformed by the knowledge of their cause into treatable or even preventable disorders. As recently as 5 years ago the genetic disease caused by the Rh factor produced anemia, brain damage or even death of babies unless they received elaborate treatment of transfusions and in some cases even before death or delivery while still premature with this added risk to survival.

Yet today a simple injection of antibodies given to the mother at the time her baby is born effectively controls this disease at only a fraction of the cost of these more elaborate treatments. This observation reflects the general principle that our knowledge that halfway solutions to these problems are complex, they are expensive in dollars and costly in manpower.

Nevertheless, even this halfway point in knowledge provides new dimensions for treatment and possible prevention of a number of diseases which in the past have been completely beyond control. Even though some of these halfway solutions are expensive, they nevertheless provide substantial savings in overall cost of health care.

To observe the remarkable improvement that can be produced in some of the children by treatment that we have now available is a moving experience I would like to share with you.

A 2-year-old girl with a new type of genetically determined progressive mental retardation upon treatment with a synthetic diet while under my care was converted from a dull-eyed unresponsive slow-

witted child into one in whom the light of understanding and responsiveness began to shine forth.

I have also seen a young man in the prime of his life struck down by a severe and incapacitating hereditary neurological disease, Wilson's Disease, in which deposits of copper in the brain converted him in the course of a very few months from a vigorous young man to a palsied, drooling invalid with the demanding and imperious behavior of advanced senility.

Fortunately we have medicines that bind to the copper and remove it from the body. You can imagine the gratification of seeing the whole process arrested and reversed by this medicine. The result was the return of this young man from a bedridden invalid completely dependent on society to his original bright alert and energetic state, fully capable of resuming his position as head of his family.

Now our experiences such as this cause me to feel very strongly the need of extending this approach to the large number of other hereditary diseases, nearly 2,000 of them, caused by single genetic disorders that are at the present time untreatable because of our lack of knowledge of their basic cause.

Now hereditary diseases afflict some 15 million people in this country and account for 25 percent of the occupants of hospital beds and institutions for the handicapped. Many of these diseases are fortunately quite rare.

We know that one baby out of 14,000 births will be afflicted with phenylketonuria, a severe disease of the mind and brain which can now be prevented by treatment and special diet from birth. Yet one person out of 60 carries that gene.

If you multiply this by the fact that there are this large number of well-defined hereditary diseases, we discover that each of us carries between five and 10 genes for a series of hereditary diseases, any one of which when matched to the recessive defective genes in our marriage partner could cause a disease in around one-quarter of our children.

Now in addition, hereditary factors less well-defined are known to underlie many of the more common diseases such as diseases of the heart and blood vessels, many forms of arthritis, diabetes and possibly even schizophrenia and some forms of cancer.

We are just beginning to be able to dissect out some of these genetic factors that could eventually take us well beyond our present halfway measures for treatment of these diseases that our present halfway state of knowledge allows.

Realizing the magnitude of this problem makes the progress that we have made in these last few years particularly exciting.

One development that has already produced a remarkable new approach in the study and control of hereditary diseases has been the ability to identify the hereditary effect in cells grown outside the bodies of patients. I brought with me from my laboratory a flask containing a small fragment of tissue surrounded by the mark at the bottom obtained from a patient with a severe form of cerebral palsy.

Now hundreds of pounds of connective tissue can be grown from that small fragment of tissue in 60 generations or so before they die.

Now this particular disease is one that is inherited through the mother in the small pattern as hemophilia and causes this severe form

of cerebral palsy. If you were to just look at these cells in culture under a microscope, they would look something like photographs. They would be really no different in appearance from a normal cell. However, the enzyme that is missing in these cells can be demonstrated in individual cells by the incorporation of radioactive material in these cells.

If we overlay the cells with photographic cells and develop it, normal cells show that way and the abnormal cells show no such incorporation. This technique then has been used on cells from a baby before birth using cells taken from the amniotic fluid that surrounds the baby and identifying in facilities where this gene is known to exist, whether or not a baby has this disease.

We have identified the carriers of this disease in one instance and in two instances we were able to identify babies that were afflicted with this disease at a sufficiently early time before birth that the patients desired to have the pregnancy terminated rather than bring another child so afflicted in the world.

Now at our medical school Dr. John O'Brien has made similar discoveries regarding a disease called Tay Sachs Disease, which has been known for 90 years. It is only 2 years ago he made two similar types of studies on the biochemistry of the disease and identified the enzyme defect. In that brief period since that time he has monitored some 20 pregnancies and found seven pregnancies carrying an affected baby. Six of these were sufficiently early that the parents desired to have the pregnancy terminated.

Now the cost of care of a child with Tay Sach Disease is around \$35,000 for his lifespan, which is rather short. At this rate, then, the return on the investment in research for Dr. O'Brien's work has been something like a quarter of a million dollars.

Just in the first year and a half of its payoff the cost of the 6 years of investment supported by NIH that led to this development was a total of around \$80,000. Yet there are around 65 such babies born each year here in this country and there is a high-risk group, the Ashkenazi Jewish population carry this gene with an incidence of about one in 30. There is a study going on here in the Washington and Baltimore area using the method developed by Dr. O'Brien for allowing patients, members of this high-risk group, to be alerted in advance so that one couple in 900 who are at risk for having children with this disease can be alerted in advance to the need for amniocentesis, this diagnostic procedure, if they are to avoid having children with this disease.

This is one of the examples in which this biochemical research has paid off.

I have here a picture of a little girl that would not be here today if it were not for this capability of Dr. O'Brien's. Most parents who have produced a child with the genetic disease decide not to have any more children rather than take the risk of one in four of producing another such child.

The mother of this particular child became pregnant, however, and was insistent that the pregnancy be terminated on hereditary grounds. They then found that Dr. O'Brien could tell them whether or not it could be a normal child and it turned out to be this normal child you see here.

So this is not a matter of just terminating pregnancies and producing selective abortions but, rather, allowing parents to have a say in the kind of children that they are producing.

Now the magnitude of this health problem of the Nation contributed by hereditary disease is great. The view that we can do something about them is new. The present financial cost to the Nation is substantial while the cost in terms of human tragedy is appreciable. Yet the prospects for their control are better now than at any time in the history of medicine.

The pathway leading to the solutions for a number of these diseases has been found and these approaches as well as exciting new leads, give promise of similar success in many of the other hereditary diseases which at the present time are untreatable.

It is considerations such as these that lead me to say that we can't afford delay in making the investment required for greater health of our citizens in the future. The return on the investment is impressive. It is a return that will go on through years to come.

I recommend that we begin by adding some \$25 million to the budget of the National Institute of General Medical Science. This is for establishing some 10 genetic referral centers associated with medical schools throughout the country, for initiating the training and research programs and for establishing a central cell bank that allows many scientists, laboratory scientists, in addition to those who are taking care of patients to work on cells such as these.

They do not need to know how to take care of a patient to do very important biological studies and biochemical studies on the nature of these diseases.

Now very few medical centers at the present time are now prepared to implement these findings of amniocentesis and prenatal diagnoses. We need to establish more centers such as that at the University of Washington and Arnold Datsko where excellent clinical and basic genetics are merged together.

For this reason we must begin today in training young doctors in the management of these genetic problems and begin training young scientists in the research approaches that are needed for the future handling of the large number of pregnancies that are at risk for such genetic abnormalities.

Now I show you the way financial savings to the Nation and the cost of health care can be realized in this budget breakdown. I have done this primarily because this is a budget committee and that is your primary concern. But more important for each of us is the fact that genetic research gives promise of ushering in a new era of preventive medicine that can eliminate much human tragedy and vastly increase the quality of life possible for our descendants here on this planet.

Now a year ago Dr. Joshua Lederberg produced testimony in favor of genetic research, additional support for genetic research, and your committee appropriated some \$10 million in addition for this particular institute. \$7.7 million was released for expenditures, which allowed the funding of some 166 grants of good quality that had been recommended for support by the NIH review systems. These would not otherwise have been funded.

I am including some \$2.5 million in this budget for the additional grants that were not funded because of the lack of release of these funds.

Now one of the big problems that we face right now is that despite all of these promising results and approaches, I find that the budget, the President's budget for this institute represents a decrease of some \$10 million over last year's budget that was funded.

It is in the neighborhood of almost \$10 million decrease. This seems to me to be the wrong thing to do at a time when we have so many very promising needs that could support not only the whole range of medicine from arthritis, diabetes, but the whole spectrum of human diseases.

Senator MAGNUSON. Thank you, Doctor. I don't disagree with your premise, but we have to work within our capabilities here. The budget is lower for general medicine this year, the recommendation. It is practically standing still. The importance of it is well known to the committee. We will see what we can do.

Dr. SEEGMILLER. Thank you.

(The prepared statement follows:)

I welcome the opportunity to speak with you of my concerns as a physician for achieving prompt solutions to a particularly difficult group of human ailments - the hereditary diseases. I want to outline for you new approaches that have opened in recent years to the control of these serious genetic diseases, which if amplified by your committee's action, can consolidate and greatly extend these gains and produce substantial savings in the cost of health care to our nation in the future. Amelioration and prevention of the nearly 2,000 genetic diseases which afflict mankind throughout the world is the primary commitment of the National Genetics Foundation, a voluntary health foundation that has sponsored my appearance before you today.

The past 20 years of my professional life have been devoted to research on the cause and treatment of hereditary diseases, first at the National Institutes of Health, and more recently at one of our nation's newest medical schools, the University of California, San Diego, where I am also teaching and directing a research program in Human Biochemical Genetics. Progress in our knowledge during this 20 years has transformed some of these diseases from hopeless afflictions of the minds and bodies of children quite beyond any hope of effective treatment, into diseases which can be prevented, and in some cases, even reversed.

The genetic disease caused by the Rh factor is one such example. As recently as five years ago, this disease produced anemia, brain damage, and even death in children unless an elaborate treatment was used. Today it is preventable by a simple injection of antibodies given to the mother at the time her children are born. It is worth noting that the present cost of prevention is but a fraction of the cost of treatment when our knowledge for control of the disease was only at a "half-way" point. The half-way solutions to these health problems are time-consuming, expensive in dollars and costly in manpower, yet even these half-way solutions usually provide substantial savings over the cost to our nation if such diseases remain untreated.

The magnitude of the toll in blighted human lives as well as the financial burden to our nation from hereditary diseases is substantial. They afflict some 15 million people in this country, and account for 25 per cent of the occupants of hospital beds and institutions for the handicapped. The fact that many victims of hereditary diseases are completely unable to care for themselves, and require full time care by their relatives, or become lifelong wards of the state in mental institutions or nursing homes, makes the total cost to the nation far greater than that of the diseases that kill outright such as cancer, stroke, or heart disease, which usually affect individuals who have already lived out major portions of their lives as contributing members of society.

An important development of the past decade that has opened the door to more detailed study of many of these hereditary diseases has been the ability to identify the hereditary defects in cells grown outside the body of the patient. This has not only increased the number of scientists who can study a given disease, but also has permitted much more detailed and sophisticated types of studies than can be done with a patient. It also allows us to identify certain hereditary diseases before the birth of a baby. This is achieved by removing some of the amniotic fluid surrounding the baby in the mother's womb before the midpoint of pregnancy (amniocentesis), and doing the test for the disease on the fluid or the cells it contains. For genetic disorders for which a known treatment is available, such early diagnosis permits specific treatment to begin at birth, or even before birth. For a few serious disorders for which a treatment has not yet been developed, the early diagnosis permits parents to decide in advance whether or not they wish to bring a child so afflicted into the world. The glimpse that this has given us of the possibilities for control of over 30 of these hereditary diseases through implementation of existing knowledge and the prospect of extending this approach to other diseases in the future, leads me to make the following recommendations, for which I will give you the basis later.

First, I propose the establishment through NIH of ten regional referral centers for research in genetic diseases to be associated with various medical schools throughout the country. These centers would bring to bear on the problems of human genetics and hereditary diseases, the efforts of a far wider segment of our scientific community than is now available, and would provide a mechanism for the prompt application to human problems of basic findings in this rapidly developing field of knowledge. Model centers of limited scope for this specific purpose are presently being operated throughout the United States as a pilot program sponsored in part by the National Genetics Foundation. Also needed is a larger program for training physicians and biological scientists in this interface area of genetics, biochemistry and medicine to provide the personnel to extend further the bridgeheads we now occupy in basic biochemistry and genetics, and to permit the rapid and smooth transmission of new findings to the delivery of care to the patient at the bedside. To accomplish this objective, personnel will need to be trained not only in basic scientific disciplines of biochemistry and genetics, but also for genetic counseling of families and for the diagnosis and long-term management of patients with hereditary diseases.

My second proposal is the establishment of a national cell bank in which cultured cells from patients with a wide variety of human hereditary diseases would be grown and stored in frozen state and thus be made readily available to a greater number of physician investigators, as well as laboratory scientists throughout this country and the whole world thereby extending greatly the scientific base for research in human hereditary diseases. Study of genetic diseases by basic scientists has extended and will extend further our knowledge of fundamental genetic and chemical mechanisms involved in the normal functions of our bodies. Other diseases, less well defined, but of substantial national importance, such as cystic fibrosis, can also be made available to intensive study by any

scientist, regardless of whether or not he has the clinical facilities for taking care of the patients, or the medical qualifications which in the past have limited seriously the approach to be made on these diseases.

Third, I propose allocations of additional funds for genetic research, over and above the present NIH budget. These funds would support the creation of the genetic centers and training programs and, in addition, extend our present national program by assuring the funding of new research grant proposals in genetics for which payment would not otherwise be possible. Such funds would also be used for more intensive study of the way in which genetic factors influence response to medicines. We are rapidly coming to the realization that differences in response to medications and many adverse reactions to medicines that account for 5 per cent of hospital admissions and take a toll of human lives have, as their basis, genetic differences in the biochemical machinery of the body. Knowledge of the basis for these differences in response could lead us to ways of identifying in advance those individuals who would experience an adverse reaction to a given medicine, and thereby avoid to some extent this serious cause of death and disability.

In a time of tight money, one can argue that we cannot afford to make this investment in additional support of biomedical research. I argue that the savings, which I can show you, in the cost of our national health programs that will be realized through implementation of the knowledge that is ready to be applied now, will provide in the years ahead, a dividend many-fold greater than this initial investment. These considerations of cost, in dollars and cents, say nothing of the more important toll in human anguish and tragedy that would be lifted from families affected by these hereditary diseases. What is the price tag that we are willing to consider for detecting and preventing a child's becoming blind from inherited deficiency of the enzyme galactokinase, or mentally retarded as a result of some of the other hereditary diseases

that are now preventable if treatment is started promptly after birth?

Although many of the hereditary diseases caused by a defect in a single gene are relatively rare, the total number of separate genetic disorders that can be recognized is rapidly increasing. Nearly 2,000 of them are now catalogued by Dr. Victor McKusick at Johns Hopkins Hospital. Over half of these require an abnormality of only one of a particular pair of genes to produce the disease, and so affect $1/2$ of the descendants of an affected person. One example of such a dominantly inherited disease is Huntington's chorea, which produces a severe neurological disease and loss of mental faculties, with onset usually after 30 or 40 years of age. The tragedy is that by that age, most individuals have already had their family, and so transmitted the gene to one-half of their children who are in turn faced with developing this same disease. About 1,000 cases have been identified in twelve generations of descendants from two brothers from Suffolk England. In our own midwest, fifty-two cases of another severe hereditary neurological disease, spinocerebellar degeneration, were recently found in only four generations of descendants from one affected man. Further research aimed at identifying the carriers of the abnormal gene before development of the disease is needed to prevent such tragedies.

In almost 1,000 of these disorders, the inheritance is recessive, meaning that the person carrying only one defective gene in a particular pair of genes is not affected. Consequently, a disease results only when the same defective gene is obtained from each parent and about 25% of the children from parents carrying the gene will then be affected. Although the frequency of each of these recessively inherited diseases is fortunately rather low, carriers of these genes are much more frequent. Thus, one birth in 14,000 births results in severe mental retardation of phenylketonuria, PKU, yet calculations show that one person in 60 carries the gene for PKU. If we further consider the large number of serious hereditary diseases that exist, we come to a startling conclusion. Instead of these

disorders being of such rarity that they have little consequence for us personally, we come to the realization that each of us probably carries around 5 to 10 seriously defective recessive genes, any one of which, if matched up with the same defect in our marriage partner, could result in a genetic disease in around 25 per cent of our children. This type of medical problem thus becomes of concern for each of us here today, since there is a statistical chance that any of us could produce a child with a serious hereditary disease.

Furthermore, genetic factors appear to underlie the more common disorders that lead to diseases of the blood vessels and heart, diabetes, some forms of arthritis, and possibly even schizophrenia. These disorders differ from the diseases usually classed as hereditary diseases in that they seem to be the result of a number of genetic factors. Only recently have we found, by studying some of the more well-defined hereditary diseases, a possible approach to dissecting out some of the individual genetic factors underlying one form of arthritis. It is interesting to note, however, that this work came directly from studies of children with one form of cerebral palsy who had the most severe deficiency in this same factor. Less severely afflicted individuals had a mild form of neurological disease, not previously recognized as being a separate entity, as well as their arthritis. We thus see the ways in which bonuses can accrue to many fields of medicine through genetic research.

Let me review with you very briefly the mechanisms by which some of these genetic defects produce a disease. Each cell in the body can be likened to a factory, and there exists in the center of each cell - the nucleus - a set of master blueprints - the genes - carrying the complete set of instructions for producing every type of cell in the body. Each specialized cell in the body like a specialized factory, has access only to certain pages of the master blueprint from which it prepares a working blueprint. This blueprint in turn directs the assembly of each of the proteins required by that cell.

A genetic disease can result from an abnormality in the assembly of the master blueprints, or in its coded instructions in one of the genes. These instructions are written in the DNA in a special language, that of the genetic alphabet. This is a 4-letter alphabet composed of 3-letter words that designate the linear assembly of the building blocks--the amino acids--for each of the proteins in the body. Some of these proteins, of course, are structural elements that go to make such things as hemoglobin, hair, skin, and cell walls; others are pieces of chemical machinery - working proteins called enzymes - that serve, in effect, the role of workmen on a production line. If the instructions are inadequate for making a functional piece of chemical machinery, an enzyme, the effect of this enzyme defect is similar to a production line in which one workman fails to appear.

In some types of hereditary diseases, a chemical substance in the body farther along the production line fails to be made, and the disease results from the need for this product. This need can be met in some cases by rather simple dietary supplements as the rational approach to treatment of the disease. In other cases the disease results from the pile up of the chemical that results from the blocked production line. In some cases, such as phenylketonuria, PKU, the accumulated substance jams up other production lines, such as those in the brain, giving rise to abnormalities of function there as well. The rational treatment of such diseases is to limit the intake of the raw materials from which the chemical that accumulates is made, thereby restoring the cells to a balanced function and correcting the abnormality. This again can be done with special diets. In the case of PKU, the clinical result of these treatments when begun shortly after birth, is remarkable in terms of intelligence achieved as compared to the intelligence of untreated affected members of the same family. In most states, PKU is now detectable shortly after birth by routine screening of blood of all newborns so that a preventive diet can be started promptly and continued throughout childhood.

The effectiveness is reflected further in the low number of children with this disease hospitalized in mental institutions during the past six years. A recent survey of nine State mental hospitals in the west showed no children with PKU under age six, while they had 25 patients with PKU age 12 to 17 years who had been born before screening and treatment programs were begun.

What is the cost in dollars and cents for control of some of these diseases? This same form of mental retardation, PKU, occurs, as I have said, in around one out of 14,000 newborn babies. The screening test for detecting the characteristic chemical abnormality of blood and urine in these children costs around \$1.25 per child, and is now applied to around 90% of newborns in this country. The cost for detecting a single case is therefore, about \$17,000. An additional \$8,000 to \$16,000 is the cost for around five to ten years of the special diet required, bringing the total cost to approximately \$33,000 per child for preventing this form of mental retardation by treatment. If untreated, each child would require around 50 years of care in a mental institution. The cost of such care in the State Mental Hospitals of California at the prevailing cost of around \$20 per day, would be around \$385,000, representing a return in health care savings of over 10 times the original investment in cost of prevention. A further bonus of comparable size from this initial investment comes from the fact that such an individual is added to the category of productive, instead of non-productive citizens. This same approach for detecting an affected child at birth by screening tests, and then applying a corrective diet is gradually being extended to other hereditary diseases. In some of our states, screening tests are being done for as many as 15 serious hereditary diseases, and the feasibility and economics of this approach are being evaluated.

Unfortunately, the number of disorders in which we know the nature of the biochemical defect sufficiently well to permit us to detect it before onset of the

clinical symptoms or devise a treatment, is very small compared to the magnitude of the problem. Before we can hope to find similar treatments for most other hereditary diseases, we must first make a further investment in basic knowledge so we can identify the precise point in the body's chemical production line that is blocked.

To observe the dramatic improvement that can be produced in some of these children by some of the rational treatments that we now know is a moving experience that I would like to share with you. I have been able to witness the lifting of the oppression of a new type of genetically determined progressive mental retardation in a two year old girl who, by dietary treatment, was converted from a dull-eyed, unresponsive, slow-witted child, into one in whom the light of understanding and responsiveness began to shine forth. I've also seen a young man in the prime of his life struck down by a severe and incapacitating hereditary neurological disease, Wilson's disease, in which deposits of copper in the brain have converted him in the course of a very few months from a vigorous young man in the prime of life, to a palsied, drooling invalid, with the demanding and imperious behavior often found in senile individuals. Fortunately, medicines are known that bind tightly to the copper and remove it from the body. You can imagine our gratification at being able to see this whole progress first arrested, and then reversed by this medicine. The result in this young man was his conversion from a bedridden invalid completely dependent upon society, to his original bright, alert and energetic self. He was able again to assume his position as head of the household and as the breadwinner of the family. I feel privileged to live in an age of medicine that sees such developments in a short space of time, and feel very strongly the need to extend this approach to the large number of other hereditary diseases that, at the present time, remain in the realm of the untreatable through our lack of knowledge of the basic cause of the disease.

Some 20-30 per cent of spontaneously miscarried pregnancies show abnormalities in the chromosomes, the structures in which hereditary material, the genes, are packaged. We can only guess at the number that have biochemical defects. Evidently, nature uses this way of eliminating her mistakes and keeping the incidence of hereditary disease low in the population. It would appear that only the exceptional case carrying a serious hereditary defect survives pregnancy without pushing the "abort button." These considerations suggest that man may help nature in this intent by using special methods to detect the presence of certain disabling, untreatable hereditary diseases sufficiently early in pregnancy that it can be terminated if the parents so wish. Although this approach can be regarded as a "half-way point" in our knowledge, nevertheless, it permits us to control the diseases in high risk groups until we have reached the stage of knowledge that permits more effective treatment or prevention of the disease. Amniocentesis is a fairly new procedure of very low risk to either mother or unborn child when performed by an experienced physician. However, we must constantly weigh this risk against the risk of producing a child with any particular disease. With further investment in research to complete our knowledge of the diseases, such termination of pregnancies may no longer be necessary to control them. Until that time, however, this method does allow parents who carry the risk for producing a child with one of these serious genetic abnormalities I have described to reproduce with some assurance of having a normal child.

Our ability to detect a number of serious hereditary diseases before birth thus provides another way of controlling some of the diseases that are not yet treatable. Before this can be done, however, we must have sufficient understanding of the underlying defect responsible for the disease to allow us to identify it in amniotic fluid or in individual cells of the developing baby grown outside the body.

The rapid pace at which new developments for application to control of these diseases are being brought forth is illustrated by some of the work in our own laboratory on a form of cerebral palsy. Only seven years ago, this particular disease was first recognized as a separate genetic disorder by Doctors Lesch and Nyhan at Johns Hopkins Hospital. Their finding of crystals of uric acid in the urine of two young brothers with the disease provided the key which allowed us just four years ago to identify the deficient enzyme produced by the defective gene that causes this disease. Special studies in single cells grown in culture from small pieces of skin, about the size of a matchhead showed that the defective gene for this disease, which affects only males, is carried by the mothers on the X-chromosome, giving the same sex-linked pattern of inheritance through the mothers as that of hemophilia. The same procedure permitted us to find out whether an unborn baby in a mother who is a carrier was afflicted with the disease. This was done by examining cells suspended in amniotic fluid that bathes the baby in the mother's womb. A small portion of this fluid was removed by a procedure called amniocentesis, before the midpoint of pregnancy, and a biochemical test and an examination of chromosomes performed. In the first case, we could reassure the mother immediately that she had a little girl, who would not be affected. The next two cases, however, were affected boys, and the disease was detected sufficiently early to permit us to comply with the parents' request that the pregnancy be terminated. We now have a screening test that can be applied to urine of patients in cerebral palsy clinics and mental institutions throughout the country for detection of this serious form of cerebral palsy, which then should allow us to alert the maternal relatives of such children to the need for amniocentesis if they are to be assured of producing sons without this defect.

Recent studies of another serious recessively inherited neurological disease of children, Tay Sachs disease, illustrates another step that is being explored for extension of this preventive approach for special high-risk populations. Although Tay Sachs disease has been known clinically for 90 years, the enzyme defect responsible for it was discovered by Dr. John O'Brien's group at our new medical school just two years ago. Using this biochemical knowledge, he was able to show that the serum of parents all of whom carry the abnormal gene, shows only about one-half the normal amount of the enzyme. The incidence of this carrier state is one individual in 30 among the Ashkenazi Jewish populations, and at the present time there are some 6 million such Jewish individuals in the United States. A pilot study is underway in the Baltimore-Washington area under the direction of Dr. Michael Kaback, who is using Dr. O'Brien's technique to identify the one couple in 900 in this population in which both parents carry the abnormal gene. They will then be alerted to the need for amniocentesis and management of their pregnancies if they are to avoid producing a child with Tay-Sachs disease.

At the present time, Dr. O'Brien has monitored some 20 pregnancies in mothers who had already produced a child with the Tay-Sachs disease. Sixteen of these were from the United States, two from Israel, one from South Africa, and one from Australia, illustrating the world-wide service that genetic centers, such as the one we have at our new medical school can provide. Dr. O'Brien has been able to identify correctly a non-affected pregnancy in some ten mothers, one of whom was intending to have a therapeutic abortion on genetic grounds until his test showed that the mother was carrying a normal baby. In seven such cases, however, an abnormal child was diagnosed and in six of these it was sufficiently early that the parent's wish to have the pregnancy terminated could be met. The cost for the intensive medical care

for the limited life span for each child with Tay-Sachs disease is around \$35,000, so that the six cases prevented in just the first year and one-half of operation of this one center represent a saving in health care of nearly a quarter of a million dollars. By contrast, the cost of the six years of NIH grants that permitted Dr. O'Brien to make this breakthrough, was only \$80,000. This investment in research has thus provided a 3-fold return on the investment in only the first year and a half of dividends. The magnitude of this gift-edge investment that I am proposing is better appreciated when you realize that 40 such babies with Tay-Sachs disease are born in this country each year, and this is just one of the thirty types of serious hereditary diseases that the one genetic research center at our new medical school is now capable of monitoring. Over fifty high-risk pregnancies have been monitored in the first year of its operation.

In the short period of three years, a rapidly increasing number of serious hereditary diseases have been detectable by biochemical examination of the cultured amniotic cells or the amniotic fluid. In addition, it allows us to detect before birth another group of diseases causing severe mental retardation as a result of abnormalities of chromosomes. New methods of staining chromosomes with a fluorescent dye promises greater precision in our ability to identify these abnormalities. The most common chromosomal abnormality is mongolism, or trisomy 21, also known as Down's syndrome, which is present in about one in 1,000 newborn babies. Children affected with this disease have an extra package of genetic material, an extra chromosome. In the United States, over 4,000 babies with mongolism are born each year. The cost of lifetime institutional care for one of these children would be more than a quarter of a million dollars so that if they were all to be cared for in institutions throughout their lives, it would represent a new committed expenditure of over 1 billion dollars each year. Yet this is only one-fifth of the number that are actually conceived and

develop at least to some stage in utero. The fact that four-fifths of these infants are aborted spontaneously again points up nature's intent to eliminate such chromosomal defects from the population. The incidence of the disease becomes much greater with increasing age of the mother, so that women aged 40 and over, who produce only 2.3 per cent of the total births, produce 23 per cent of the children with mongolism. This age group become a high-risk group for mongolism, and pilot studies are now underway at our genetic unit and elsewhere to determine the feasibility of monitoring pregnancies in this age group in an effort to prevent mongolism and possibly other chromosomal abnormalities that occur in greater incidence at this age of the mother. Eventually this procedure, if applied throughout our country, could prevent 1,000 cases of mongolism born each year who, if hospitalized for their lifetime, would require over 300 million dollars. To detect these thousand cases, some 96,000 pregnancies would need to be monitored at a total cost of 15 to 25 million dollars less than one-tenth the cost of their lifetime care.

In a period of our nation's development that faces the problems of over-population, the quality of the children that we are producing should become a major concern. If we are to have families of only two or three children in the future, we should do all in our power to assure parents that those children will be endowed with the best genetic heritage the parents can give. A child can achieve his full potential for growth and development only with a healthy mind and body.

It is considerations such as these that lead me to say that we cannot afford to delay making this investment in a greater health for our citizens in the future. The return on the investment is impressive in savings in cost of health care alone without consideration of the savings in human anguish. Most of our medical centers at the present time are

not yet prepared to implement these findings of amniocentesis and prenatal diagnosis. For this reason, we must begin training young doctors in the management of these genetic problems and in research approaches that are needed for the future handling of large numbers of pregnancies that are at risk for such genetic abnormalities. This can best be done by increasing funds for training these investigators of the future through both fellowships and training grants to appropriate institutions. In addition, we need genetic clinical research centers to provide the continuing specialized care for patients with hereditary diseases and to evaluate the clinical effectiveness of new approaches now on the horizon for possible correction of certain types of enzyme defects. I, therefore, recommend that the budget of the National Institute of General Medical Sciences be increased by \$25 million during this next year. This would be apportioned as follows:

\$2.5 million	Genetic Research Grants Backlog
\$1 million	Research Grants in Pharmacogenetics
\$8 million	Genetic Research Centers
\$5 million	Genetic Clinical Research Centers
\$6.5 million	Training Grants
\$1 million	Establishment of a National Cell Bank
<u>\$1 million</u>	Fellowships
\$25 million	

I have described some of the new advances now available in the treatment and prevention of certain hereditary diseases that promise a new era of preventive medicine for control of these hereditary diseases. There are, however, innumerable other very serious genetic diseases, affecting millions of persons, requiring solutions. Funds allocated for their investigation and control will constitute a gilt-edge investment opportunity. I have enumerated the fiscal cost and benefits primarily because yours is a committee

concerned with the budget for health. Of far greater importance is the prospect these developments hold forth for opening up constricted human lives beyond the level of vegetative existence, or beyond the constraints of life-long physical or mental disability, and for the prospect of improving the quality of those lives in families affected with a serious hereditary disease. With our fund of scientific knowledge and proven approaches to the problem, these too give promise of being conquerable. The prospects of implementation of this new era will rest on your decisions and recommendations.

STATEMENT OF JOHN SALLEY, THE AMERICAN DENTAL ASSOCIATION AND THE AMERICAN ASSOCIATION OF DENTAL SCHOOLS
ACCOMPANIED BY MR. CHRISTENSEN

PREPARED STATEMENT

Senator MAGNUSON. Dr. Salley.

Dr. SALLEY. Thank you very much, Senator.

By way of introduction I am here wearing two or three hats. I serve as dean of the School of Dentistry at the University of Maryland and president of the American Association of Dental Schools and also represent the American Dental Association. I have with me Mr. Christensen.

I overheard your remarks this morning. You began with dentists and I assume you are going to end the day with dentists [laughter].

We have a detailed statement which we would like to submit for the record.

Senator MAGNUSON. We will put it in the record in full.

(The statement follows:)

HEALTH MANPOWER

A. Institutional Support: This section of the existing health manpower legislation--encompassing both basic and special project grants--is, in many ways, the key to placing the entire dental education system on a stable operating basis. A way must be found, with federal participation, to eliminate the present hand-to-mouth existence of so many schools, an existence that stifles innovation and consumes so much of the energy that should be directed toward increased productivity and enhanced excellence.

There are, at present, 53 dental schools, of which 49 are fully operational. An additional five schools are on the horizon. At the beginning of the present school year, some 16,533 students were enrolled and, 3,760 new dentists are expected to graduate this year. The national interest in dental education lies not only in the fact that the federal government itself has heavy personnel requirements that must be met--about 1,700 young dentists enter the military service annually--but also because 22 states still lack a fully operational dental school and thus must look outside their borders for the dentists they need.

The financial situation of the dental schools system today is dangerously precarious. For 1969-70, as an example, 41 surveyed schools, after receipt of federal institutional grants, reported a composite deficit of nearly \$50 million. Twenty-two schools had deficits in excess of one million dollars and the average U.S. dental school had an operating deficit of \$1.25 million. On a per student basis, it can be said that a number of schools presently have deficits in excess of \$6,000 and some report one as high as \$10,000.

Dental schools, during the years since there has been federal support of health education, have received the following amounts in basic grants; 49 schools received \$2.97 million in fiscal 1966; 52 schools received \$8.4 million in fiscal 1967; 51 schools

received \$8.9 million in fiscal 1968; 51 schools received \$9.2 million in fiscal 1969; 52 schools received \$9.4 million in fiscal 1970, and 52 schools received \$9.3 million in fiscal 1971.

The second aspect of institutional support is the special project grant. Experience with these grants has been justifiably troubling to all concerned. Conceived as a device for support in enhancing the quality of education, much of the money has had to go instead to rescue schools that were in danger of closing their doors. It is our information that, in fiscal 1971, the majority of special project grants going to dental schools under this section are, in fact, rescue funds. While we believe that, for at least the next few years, there will still be a need for rescue funds in special, carefully documented instances, this must not be allowed to continue to overshadow innovations in excellence.

During the life of the act, dental schools have received the following amounts in special project grants: 11 schools received \$2.7 million in fiscal 1968; 26 schools received \$8.7 million in fiscal 1969; 35 schools received \$12.9 million in fiscal 1970, and 42 schools received \$16.3 million in fiscal 1971.

We think it can be said that nearly everyone recognizes that institutional support must be markedly increased in the coming years if the nation is to achieve its three-fold goal of increased productivity, enhanced excellence of education and achievement of the necessary level of fiscal stability for every school.

For fiscal 1972, the Administration is requesting \$271.6 million for institutional support of all health professions schools. This would not, in our view, be sufficient. We would recommend, instead that the Committee look to the level of funding authorized in the bills recently passed by both Houses providing extension of the health manpower laws. Those Committees were able to gather the most recent information available and gave full hearings to all interested parties. The bill reflects, we believe, a realistic appraisal of the minimum that must be done.

B. Construction: With the combined assistance of federal and non-federal funds, six new dental schools have opened their doors in recent years and four more are in the planning stages. A total of 1,123 new places have been created as a result of new schools and major expansion of existing ones. (During the same period, as already noted, two schools with 425 total places have been closed.) Under the construction section, some \$173.3 million has been expended in matching grants for teaching facilities in new

dental schools or major expansion of existing ones. The total estimated cost of these projects is \$310 million, which means that the federal amount is some 55 per cent of the overall expense.

The pace of construction, however, must be perceptibly quickened if we are to begin to improve our ratio of dentists to patient--which has become markedly less favorable over the past few decades--and if we are to increase the number of states that have a dental education facility.

There is no lack of qualified students to fill the larger number of increased first-year places that would result. The ratio of applications to acceptances in dental schools today is 3 to 1. In the past decade, some 47,000 applicants were turned away from dental schools. In 1970, it is our estimate that at least 3,000 thoroughly qualified applicants were not admitted because there was no room for them.

Nor is there any lack of interest on the part of institutions throughout the country. This can be seen most clearly in the huge backlog of applications that sit in the office of the Bureau of Health Manpower. At the end of fiscal 1970, that backlog was \$47.2 million. By the end of fiscal 1971, it almost tripled and was \$117.3 million. Included in this backlog are the applications of four new schools, two in states that now have none.

The fiscal 1972 request for construction is \$96.7 million. Even if that entire sum were applied to dental schools, it would be too little to wipe out the current backlog. In fact, of course, that sum must be shared by all the schools of the seven professions represented in the law. The fact is that, under the prevailing levels of funding, a dental school application filed today could probably not receive serious consideration until fiscal 1977 or later. Once again, the levels of authorization in the recently passed health manpower bills are more realistic barometers of need.

We should like to note, that throughout the life of the act, dental schools have been apportioned 20 per cent of the sums appropriated for construction. This has represented, in our view, a reasonably fair share of these funds. This allocation assumes even greater importance now because of the immense backlog. We would hope that the Committee would continue to follow the precedent, originally set by Congressional action, and specify that dental schools will, in fiscal 1972, receive 20 per cent of the total appropriation for construction.

C. Loans and Scholarships: Throughout the life of health manpower legislation, a separate loan and scholarship fund has been maintained for health school students. The justification for this is two-fold.

First of all, the vast majority of such students, including all dental students have already undergone some undergraduate education. Indeed, nearly two-thirds of all dental students have completed four years of undergraduate education. They and their families, then, have already had to face those expenses, and in many cases, money has been borrowed for them. The four years of dental school, then, present an entirely new financial burden to families and students.

Secondly, professional health education is highly expensive and, within that category, dental students currently pay the highest tuition costs for any professional education.

The average four-year educational cost to a student in 1970 was nearly \$9,000. For the past decade, this tuition has been rising at the rate of 7 to 10 per cent a year. In some schools, four-year educational cost now exceed \$12,000 per student. Those who are expert on trends within dental education tell us that we are already seeing a decline in students from more modest financial levels. It is intolerable to have a health education system where the bench-mark of acceptance is not ability, energy or degree of commitment but, instead, the income of one's father.

As an additional note, we would want the Committee to know that, in the past three years, through their own increased initiative and with some private foundation assistance, dental schools have managed to double the number of black first-year students. Enrollment of other minorities has appreciably increased as well. To a much greater extent than other groups of students, though, these talented and highly committed youngsters need broad financial support during their years of study.

Under present law, loans to students had a ceiling of \$2,500 per student per year. In fact, though, the average loan going to such men and women has rarely been one-half of this ceiling and with, regard to scholarships, where the same ceiling applies, it has been as low as one-third the authorized maximum. This has come about because sufficient funds to permit ample allocation have never been requested. Here, too, adherence in fiscal 1972 to the levels authorized in the pending legislation would begin to reverse the situation. This money it should be said is an excellent investment in the health care of the nation. This is parti-

cularly so, it seems to us, in light of the fact that the money would be returning to the government, with interest, as the loans mature. Given ample funding for a reasonable period of time, the health students loan fund could become self-supporting as re-payments are used for new loans.

Allied Health Professions

The present gap between need for and accessibility of dental care cannot be narrowed in the near future without vastly increased numbers of dental auxiliaries.

There are today some 18,000 dental hygienists, 103,000 dental assistants and 26,000 dental laboratory technicians. The resulting ratios-- 17 hygienists, 101 dental assistants and 26 dental laboratory technicians for every 100 dentists-- are far below what is necessary. We ought to have today nearly two and one-half as many hygienists, twice as many assistants and nearly twice as many technicians.

Federal participation in the effort to increase the number of auxiliaries is centered in the Allied Health Professions Personnel Training Act, which was recently extended. The law is well designed to fill the particular needs in this area. Various sections of the law cover matching grants for construction, work-study programs, teaching fellowships, basic and special project grants for the institutions as well as loans and scholarships for students.

Regrettably, the fiscal 1972 request is not only far below what is possible--less than one-third of the authorization is being asked--but whole sections of the law are being left wholly unfunded. There is no money asked for special improvement grants, none for scholarships, none for work-study programs, none for loans for construction. It is difficult to understand how an Administration that lays such **stress** on the need for vastly expanded auxiliary assistance can so underfund the central federal program for the training of such additional personnel. Our Associations would recommend that the Administration request be doubled and that the Committee specify that at least some funds should go to each of the nine sections of the law.

The National Institute of Dental Research

This agency of the National Institutes of Health, is, by any definition, the single most important element in dental research in the United States; perhaps, in the world. Though it is the smallest of any of NIH's basic research components, its importance in its field is as great as any.

Over past fiscal years, the Institute has had a variable experience with regard to funding. In both fiscal 1970, it suffered substantial cuts in its overall budget. Indeed, its fiscal 1970 budget was all but identical to the sum appropriated in fiscal 1967. Over four fiscal years, then, given the decline in purchasing power, NIDR's base steadily shrunk.

This decline began to be reversed in the present fiscal year and the fiscal 1972 appropriation request would, if approved, constitute further improvement. This apparent change in the attitude of the executive branch, which will hopefully continue, is most welcome. It must be said, however, that the ill effects suffered as a result of the standstill during fiscal 1967-1970 are far from being thoroughly remedied.

The increase of funds for this year, and that requested for the coming period, is largely earmarked for a special purpose, the National Caries program. No one will deny the importance of the National Caries program. The incidence of caries among Americans is deplorably and unnecessarily heavy. The cost of treating dental caries is estimated to be at least \$2 billion a year. A base of research has been carefully and painstakingly built in recent years under the leadership of NIDR. It is important to take advantage of this fact and initiate the kind of concentrated effort that can hopefully yield major results in the foreseeable future. We applaud the effort to move ahead swiftly.

Nevertheless, this concentration on the special program is exacting penalties elsewhere, penalties that, in our view, are somewhat higher than should be expected. According to our information, some \$9 million will go for the National Caries program in fiscal 1972. The remaining \$29 million, as the Administration itself candidly admits, is insufficient to even arrest, much less reverse, the continuing decline in other NIDR programs.

For example, there were 317 research grants funded in fiscal 1966--six fiscal years ago--and yet it is anticipated that only 208 will be funded next year. There were 104 training grants funded in fiscal 1966 as compared with an expected 81 in the coming fiscal period. Fellowship grants numbered 120 in fiscal 1966 against 81 in the coming year.

These are extraordinarily serious cut-backs that will adversely affect the entire spectrum of oral research. It is incomprehensible to us that such sharp reductions could be contemplated at the very time when need and demand are moving just as sharply in the opposite direction. Greater numbers of trained men and women are needed to investigate causes and cures of oral cancer, of cleft-lip and palate, or periodontal disease, the chief cause of tooth loss in those over the age of 35.

Further, as the dental school system moves ahead in response to growing demand, with federal help, the new and expanded schools will need faculty members with high qualifications. The NIDR training grant and fellowship programs are a prime source for such men and women.

It is the belief of our Associations that an increase in the fiscal 1972 budget is essential if NIDR is going to be able to maintain a well balanced program with at least some perceptible progress in most areas within its purview. At a minimum, we believe that an annual 6 per cent cost-of-living increase, beginning with fiscal 1969, should be incorporated into the NIDR budget in addition to the earmarked funds for the National Caries Program. On that basis, the fiscal 1972 budget for the Institute would be \$43.6 million. We ask that the Committee appropriate such a sum.

Division of Dental Health

Few agencies within the Department of Health, Education and Welfare are called upon to perform so wide a range of essential duties with such limited resources as is the Division of Dental Health.

Among the Division's current responsibilities are applied research on filling materials, supervision of dental public health traineeships, conduct of experimental programs on expansion of dental auxiliary duties and delivery of care for rural children, exploration of continuing education devices, liaison duties with other federal agencies carrying out programs with dental aspects, funding of programs in dental schools directed toward improving the productivity of dentists and investigation of alternative methods of dental prepayment.

For some years, the Division has been so undervalued by the Department that it has had to struggle to fulfill these responsible and complex duties with total annual budgets that never exceeded \$12 million. Now, in the fiscal 1972 budget, the Department's line item has totally disappeared. This means that Congress can no longer exercise any precise scrutiny whatever of the Division's activities.

This is, we might say, the second time in recent years that the Department has attempted to pre-empt the prerogative of Congress with respect to this Division. Our Associations thought it was a serious error of judgment the last time and were most grateful when Congress demanded the restoration of the line item. It is our hope that Congress will once again reverse this attempted pre-emption.

The Division occupies a singularly important position so far as national and state dental organizations are concerned. It has a significance far beyond the dollar levels it has been accorded. The Division, it is fair to say, is the sole, central HEW agency dealing with many dental public health affairs of importance not just to the profession but, to the public. Its broad-based activities deserve the highest possible visibility as well as more generous support.

There is, for example, no parallel source within the entire federal government for the programs (DAU and TEAM) of the Division that train dental students to work with expanded function auxiliaries in order to stretch the productivity of professional manpower. Such programs are strongly supported by the profession and the dental education system. It is our understanding that some 25 to 30 schools would incorporate this program into their curriculum were sufficient funds available as grants. Last year, only nine schools could be partially funded.

A number of additional examples could be cited. The point is that such efforts as these have in themselves far greater importance than the severely limited funds would indicate; indeed, a greater degree of autonomy for this Division is justly indicated, rather than an effort to downgrade it. In addition, as we have noted, the dental profession attaches great importance to Congress having direct knowledge of these matters, something that can take place only if the Division Director appears before the appropriate Committees to testify to an independent, line item budget. We urge the Committee to re-establish the line item for the Division of Dental Health and, for fiscal 1972 to allocate an additional \$5 million to enable the Division to more fully meet its diversified responsibilities.

We should like, as well, to call to the Committee's attention a matter touching the Division of Dental Health, a matter that is especially critical with regard to timing.

In fiscal 1968, Congress appropriated \$2.5 million to the Division for construction of special purpose facilities in its Dental Health Center in San Francisco. The following year, Congress supplemented that with an additional \$600,000.

It is our understanding that this construction has not yet gone ahead because the National Institutes of Health, of which the Division is a part, has not been able to identify \$1.5 million in its building and facilities budget for the purchase of necessary equipment.

As the delay continues, of course, the purchasing power of the construction funds erodes. More, importantly, vital activities with regard to use of dental manpower are badly hampered.

Within the coming years, great change undoubtedly will take place in the practice of dentistry and in the expectations and demands of the public with respect to the dental services they receive. With increasing demands for change, the program planned for the new facility of the Division could play a major role in preparing professional and allied school faculty members, private practitioners, student counselors, health care administrators and a whole host of others to take the lead in making constructive changes which will permit the public's rising expectations to be met.

If the facility were open within the current calendar year, training programs would be initiated for faculty of dental schools who are charged with training dental students in the effective use of various types of dental auxiliaries, in the management of staffs of dental auxiliaries trained at different skill levels, and in the technology of curriculum design, modification and evaluation. Faculty of auxiliary training schools would be aided similarly. Private practitioners would be offered opportunity to continue their education, particularly as it relates to updating and streamlining their practices. Health care administrators--those needed for neighborhood health centers, area health education centers, health maintenance organizations and other new types of organizations which are destined to develop and grow as mechanisms through which dental health services will be provided in the future--would be trained in management skills, principles of dental health practice, economics of health care, and related subjects. State and local health agency personnel, who may be expected to carry an even greater share of responsibility for health services planning, development and administration in the future as decentralization of authority and funding of programs moves to the States, would be given continuing opportunity to keep abreast of new prevention and service developments which are ready for application within the States, to increase their skills in program planning and evaluation, to increase their capacities to handle cross-cultural relationships effectively, and, in general to play their essential leadership roles effectively.

Our Associations are most concerned that if action is not taken during fiscal 1972, the \$3.1 million appropriated for construction will no longer be adequate for the purpose. Indeed, revisions of planning have already had to take place.

We would, consequently, urge this Committee to take two necessary actions. First, to provide \$1.5 million from fiscal 1972 buildings and facilities budget of NIH, to be earmarked for purchase of equipment for the San Francisco dental health center annex of the Division and, secondly, to recommend that the \$3.1 million for construction of that annex be made available to the Division so that construction activities can begin.

Pilot Dental Care Projects for Needy Children

Dental disease is unique in being so endemic; nearly everyone is susceptible to it. Yet, most kinds of dental disease are preventable.

For this reason, the dental profession has long attempted to persuade the nation, and its public agencies, that a preventive program, especially one aimed at children, is the soundest approach, both professionally and fiscally, to genuine control of the dental disease problem.

Since 1967, there has been in existence authority under the Social Security Act (Section 510 of Title V) to launch a series of pilot dental care projects for needy children. Such projects would accomplish two purposes. They would first, make available badly needed care to a number of poor children who now, for reasons beyond their control, receive none. Secondly, they would permit experimentation with various methods of doing this in an attempt to identify those delivery and administrative approaches that showed the most promise.

Though this authority has now been in existence for more than four years, and despite urgings from this Committee and its House counterpart, the Department of Health, Education and Welfare has consistently refused to fund the projects in any meaningful way. The authority for the projects will expire at the end of the coming fiscal year. The Department having been so shortsightedly adamant over so long a period, our Associations no longer believe it feasible to continue to cling to this approach. Too much time has already been lost, time during which we could have gathered a significant amount of data that would be invaluable today as direct care programs expand.

It is for this reason, among others, that our Associations, and the entire dental profession, are so gratified at the introduction by the Chairman of this Subcommittee of S. 1874, the Children's Dental Health Act of 1971.

In the barely eight weeks since its introduction, the bill has attracted some 40 co-sponsors and has already been the subject of hearings by the health subcommittee of the Senate Labor and Public Welfare Committee.

S. 1874, in addition to giving new life to the pilot dental care projects, would enlist federal participation in a more meaningful way in the training of dental auxiliaries, in the attempt to teach dental students and dentists how best to work with such auxiliaries and would also enable the federal government to respond to requests for assistance from communities and schools wishing to fluoridate their water supplies. It is our hope that S. 1874 will continue along the path toward enactment at its present rate and that, in the near future, we will be able to testify before this Committee on fiscal 1972 appropriations for its implementation.

HEALTH MANPOWER

Dr. SALLEY. In just a few minutes I would like to summarize some of the basic points contained in that statement. First, we speak to the question of health manpower. I will simply say at this point that in view of the present status of the health manpower legislation we have no specific recommendations to make at this time concerning appropriations, but in the record statement we do mention some guidelines which we hope the committee will—

Senator MAGNUSON. They are very helpful. As I have said here many times today, it is entirely possible we can get that before we get this bill ready, but what bothers me is not so much the House and Senate conferences on it—I think they will come to some conclusions the first of the week—but it still has to go down to the budget.

The budget, as Chris knows, we don't know how long they will take to come up here with the money or the recommendation for the money.

Dr. SALLEY. The other point we would like to mention to you, Mr. Chairman, is the plight of the National Institute of Dental Research, which we think is probably the most important component and institution in the country, if not in the world, which devotes itself to dental research. Like many of the speakers you have heard today who have referred to different institutes in the NIH, we feel that the NIDR is vastly underfunded and we would like to suggest that taking into consideration the needed increases based upon cost of living plus the caries initiative program that the 1972 budget contained \$43.6 million for the NIDR.

Senator MAGNUSON. Yes; with the budget recommendation for the Institute you are standing still, or even going backward.

Dr. SALLEY. We have gone backward. The caries initiative has brought us up in dollars, but in total program we are still standing still and we need to expand.

Another point that we would like to leave with you if we could is the Division of Dental Health, which is probably the only agency within HEW which devotes itself to the concerns for the delivery of dental health services with the promotion of expanded function of dental auxiliaries, dental auxiliary utilization, and so on.

This makes the second year in a row that the Department has attempted to delete the Division of Dental Health as a line item in the budget. One of the major concerns we have is that if this deletion is allowed, then Congress will have no way of continuing surveillance of the program of the division. We hope that you will, as you did last year, place it back into the bill.

Finally, Senator Magnuson, we simply will take a minute to express the appreciation of both of our associations for your authorship of Senate 1874 and we look forward hopefully to the time we can come back and testify on appropriations then.

Senator MAGNUSON. I want to express my appreciation for all the help you people and Chris and everybody gave me on this thing. As a matter of fact, the bill is moving with remarkable speed for this place. As I said earlier, Senator Kennedy thinks he can get it out next week. We might be able, after we get back after the recess, on a supplemental get something moving, get our foot in the door on it.

Dr. SALLEY. That will be very gratifying.

Senator MAGNUSON. Everybody gave me a great deal of help on it.

We have heard a lot of testimony here. We had some good testimony on dental assistants here today. That lady from Columbia, Mrs. McLean. I was very pleased that she mentioned about some of the community colleges starting out this 2-year course. That can come under that vocational money we have in the Office of Education, as well as allied health.

The college might secure a grant and say one of the things we have going is a school for dental assistants just as well as a school for auto mechanics or something like that. I am hopeful we can take advantage of it. This will be a pool for auxiliaries down there with those people.

Dr. SALLEY. In my own home State of Maryland, since September we have had four dental assistant programs begin in the community colleges.

ANTICIPATED STATEMENTS

Senator MAGNUSON. We thank you very much. This concludes the hearings for nondepartmental witnesses. Several Members of the Senate have requested an opportunity to file statements for the record and we will therefore keep the record open for 5 days to receive statements and testimony from Senators. Many who wanted to testify did not realize that we would be moving this fast with the hearings and we don't want to shut the door too quickly. So the record will be open and the statements we receive will be included in the record at the end of this day's hearing.

(The submitted statements follow :)

STATEMENT OF HON. JACOB K. JAVITS, U.S. SENATOR FROM
NEW YORK

I am pleased to be here and share with the Subcommittee my views on the adequacy of the President's budget requests for critically needed health programs. I will focus on certain major areas of concern: health manpower, biomedical research and special programs (lead-based paint, alcoholism, and drug abuse).

MANPOWER RESOURCES

There is a national consensus that there is a severe shortage of all health manpower, the vital resources necessary to provide health services. I would strongly urge the Committee to fund the recently-passed Senate health manpower and nursing bills (which are presently in conference) at their full level of authorizations, \$1,190,000,000 for health manpower (S. 934), and \$350,500,000 for nurse training (S. 1947). Let me briefly call to your attention several components of these innovative health manpower measures.

A. There is authorized \$200 million for a new consolidated program of construction grants, which includes health professions teaching facilities, medical library facilities, and health research facilities. In one facet of this program, health professions educational facilities, there is a backlog of \$614,018,366 approved but unfunded projects; a backlog that includes nine new schools of medicine and four schools of dentistry, which would respectively produce 620 and 320 new first year places. There are an additional

\$151,758,758 medical, dental and pharmacy school construction project applications pending Council action.

To extend the reach of Federal assistance beyond grants, there is a new loan guarantee and interest subsidy program. Eight million is authorized for the 3% interest subsidy provided under the bill. If we are to stimulate the construction of these urgently needed facilities, it is vital that the loan guarantees and interest subsidies be made available.

B. To bring manpower to medically underserved areas, \$102,500,000 is authorized for student assistance programs based on estimates of best available information on numbers of schools and entering class sizes. In 1971 the loan assistance programs provided help to 22,422 students and 18,255 students were assisted by scholarships. At this point in America's health care crisis, it is particularly important to have programs which encourage manpower distribution by specialty as well as geographic area, as provided in the health manpower and nursing bills. We must encourage students to enter specialties that are of particular importance to the improvement and distribution of health care and all student assistance programs. Both the manpower and nursing legislation include incentives for practice in health manpower shortage areas.

C. Our health professions educational institutions must be assured of Federal funds sufficient to stabilize their finances if they are to respond to national needs and \$426 million is authorized for institutional support to health professions schools. The authorization is computed as an entitlement on the basis of

individual school enrollment with capitation incentives for increased enrollment, shortened curriculum, and the training of physicians' assistants. A sound base of institutional support will alleviate financial distress in the schools of the health professions, which in recent years has necessitated some 60 schools of medicine and osteopathy and 22 schools of dentistry to receive Federal assistance due to severe financial straits. We cannot risk having our schools undermine the quality of our educational programs due to severe financial distress.

D. Twenty-five million is authorized to explore, test and apply computer technology to improve the quality and efficiency of medical and health care services. Expectations and demand for health services have far outstripped the capabilities of scarce resources to deliver them. It is urgent that we take advantage of the impact that this new technology can provide the strategy for effective health care delivery.

BIOMEDICAL RESEARCH

The Senate has made major efforts this year to improve medical research which seeks to conquer the dread disease of cancer. The new legislative initiative supports my testimony of previous years before this Subcommittee urging a Manhattan-type project to combat cancer and I strongly support the budget request for cancer research. However, I am deeply concerned by the implied budget request cutbacks for the other very important institutes of the

National Institutes of Health.

The NIH FY 1972 budget for graduate research and training programs is \$37,048,000 less than the amount appropriated for this purpose in FY 1971.

NIH Graduate Fellowship and Training Grant programs constitute the basic national investment in the young minds and ideas that will shape the future of medical education and research. Only through these programs will the new investigators required for such proposed major research efforts as the attack upon cancer be made available. In like manner, the additional faculty upon which the Nation's efforts to expand medical education and the training of health manpower is almost completely dependent will derive from these training efforts. Reductions in these vital programs will only serve to thwart other national objectives.

Also, there is an \$11.5 million reduction in the General Research Support program of the NIH below the level of funding established for this program in FY 1971 appropriations. Research and research training programs provide funds which can be used in the development of new programs; provide initial support for young investigators undertaking pilot projects and feasibility studies, and support centralized facilities and services needed by multiple investigators. These funds greatly multiply the value of appropriations specifically directed to the support of research projects and phasing out this program will substantially impair the effectiveness of our entire medical research structure.

Although a biomedical research budget of \$1,292,000,000 can hardly be called modest, in essence the total research activities of all the NIH institutes are substantially the same as last year. In 1971 the comparable appropriation with the 1972 budget request as testified to by HEW on July 19, 1971 -- exclusive of the \$100 million special cancer initiative -- indicates an increase of approximately \$14 million or 1.2%, not even a cost of living increase.

I would also direct the Subcommittee's attention to the National Heart and Lung Institute, which suffers a cutback of \$1,526,000 if the increase of \$4.8 million, called for by the President's health message of February 18, 1971, for sickle cell anemia, is added to the 1971 appropriation.

I would recommend the Subcommittee restore that budget cutback and the budget cutbacks in: the National Institute of Arthritis and Metabolic Diseases of \$1,393,000; the National Institute of Neurological Diseases and Stroke of \$7,152,000; the National Institute of Allergy and Infectious Diseases of \$418,000; the National Institute of General Medical Sciences of \$10,564,000; and the John E. Fogarty International Center for Advanced Study in the Health Sciences of \$400,000 to their 1971 level, plus no less than a 7.9% medical cost of living increase.

SPECIAL TARGETED PROGRAMS

A. Lead-Based Paint. I support the Administration's request for an additional \$2 million in an amendment to the 1972

HEW budget, to make a start toward eliminating lead-based paint poisoning -- which strikes 400,000 children annually, causes 3,000 to suffer brain damage and 800 to die -- but it is not enough. This is a preventable disease and the Bureau of Community Environmental Management (BCEM) had received requests from 38 communities amounting to \$33 million for local lead control programs.

I urge this Subcommittee to appropriate for FY 1972, \$24,990,000, the full amount authorized for the Department of Health, Education and Welfare, to develop community treatment and screening programs.

B. Alcoholism. I am deeply distressed that there is no request for funding any of the \$100 million in authorizations for programs established under P.L. 91-616 (project grants and state planning grants) to meet a national crisis, and I would strongly urge the Committee to fund at the full level of authorizations. There are 85,000 alcohol abuse-related deaths annually and the direct annual alcoholism public health problem costs are conservatively estimated at \$15 billion (\$10 billion in lost work time; \$2 billion in health and welfare; and \$3 billion in traffic accident costs). There is an additional \$100 million for police, court and penal costs.

Although alcoholism is one of the most prevalent, destructive, costly and tragic forms of illness in the United States -- there are nine million alcoholics -- the 1972 request of \$30.6 million for NIMH and OEO programs provides, as I previously indicated, no funds for alcoholism programs under P. L. 91-616. It is only a \$6.4 million increase -- or less than a penny for each alcoholic -- to meet a health problem of immense and tragic proportions.

Although there is a \$15 million increase proposed for staffing community mental health centers (\$105.1 million for 1972 compared to \$90.1 million in 1971), in fact this will result in staffing 10 fewer new projects, just as we have begun to develop community involvement. Similarly, the community mental health centers construction program is reduced by \$27,678,000.

I would note that the New York City Department of Mental Health, Bureau of Alcoholism Services, advises there is no Federal support for the \$6,000,000 required to implement its plan for six new treatment centers, needed to overcome its severe facility shortage, which presently reaches less than 2% of the City's 300,000 alcoholics.

There are fragmented budget request increases for funding various alcoholism programs, but tragically the funds requested will be insufficient to realistically help the millions of Americans who are alcoholics. The HEW professional judgment budget indicates that a first-year comprehensive alcoholism treatment program would require \$155,430,000 in 1972. I request that the professional judgment budget and description of costs be made a part of my remarks.

C. Drug Abuse. I applaud the President's announcement and initiative in indicating that 1972 obligations for programs to combat drug abuse will rise to \$381 million from a total of \$178 million in 1971. However, the magnitude and scope of the narcotics problem, readily seen from an examination of statistics from my own City of New York, conclusively proves that substantial additional funds must be provided.

In 1960, there were less than 200 narcotic-related deaths, yet ten years later, in 1970, the number of such deaths increased to over 1000 -- 215 of these were teenagers and the youngest was

only 13 years old. It is a tragic fact that more people ages 15-35 die as a result of narcotics than from any other single cause. Experts now indicate that there are over 250,000 addicts in the Nation and over 100,000 of them are in New York. The demonstrable relationship between narcotics addiction and the commission of serious crimes is no longer subject to question, and the cost in terms of broken homes, estranged families and lost opportunities constitutes one of the most pervasive social tragedies of our times. According to NIMH officials, an estimated 40 million Americans are directly affected by drug abuse.

While the 1972 budget request for narcotics addiction rehabilitation grants, including new projects in drug abuse education and new special projects, is \$27 million -- a \$5.6 million increase -- it should be noted that \$65 million plus such sums as may be necessary are authorized. Further, with respect to staffing grants, while there were seven new projects in 1971, staffing funds will not support new projects in 1972. The 1971 budget supported 33 new special project grants, but the 1972 budget request permits a mere 3 new special projects.

In drug abuse education, the 1972 budget request of \$1.5 million will support last year's effort with no increase, yet \$12 million is authorized. Moreover, there has been a tragic fiscal response to the drug abuse plague that terrorizes the Nation. This is substantiated by the 65 applications by different communities in the State of New York and the more than 40 applications from colleges in the State of New York to establish projects under P. L. 91-527 and national community funding requests of more than \$55 million, and college funding requests for

almost \$15 million. Yet the grants made in response to these requests were only \$2.8 million as compared to total requests of \$70 million. I believe this demonstrates a complete and utter lack of commitment to the problem at the Federal level.

In closing, I would note that the New York City 1971-72 fiscal year budget for drug abuse is \$87.5 million, of which only \$2.38 million is Federal, and Model Cities' money for drug abuse totals \$2.55 million. Finally, let me make the ironic point that, despite recommendations for stepped-up efforts in the addiction field itself, we cannot end drug abuse without a thorough regard for the context in which it takes root. Drug abuse symbolizes hopelessness and frustration. Drugs are a survival issue. The soaring budget -- I would urge appropriations of \$700,000,000 -- is a perverse indicator of national health. Young people are saying we don't care about living in the world we see in front of us. The Nation, therefore, cannot end drug abuse without rebuilding our cities and without developing a set of worthy goals for our society. While pleading for additional Federal help to cope with New York's tremendous addiction problem, I am also calling for national leadership on these much broader issues as well.

 SENATOR JACOB K. JAVITS RECOMMENDED INCREASES
 APPROPRIATIONS

Title or Program	Javits Recommended	Budget Request
Health Manpower	\$1,190,000,000	Not authorized yet
Nursing	350,500,000	Not authorized yet
Biomedical Research	1,292,000,000 (+7.9%)	\$1,292,000,000
General Research Support	52,573,000 (+7.9%)	41,173,000
Training Grants	139,763,000 (+7.9%)	109,776
Fellowships	49,964 (+7.9%)	42,903
Total	189,727,000 (+7.9%)	152,679,000
Cancer Research	332,234,000	332,234,000
National Institute of Arthritis & Metabolic Diseases	135,793,000 (+7.9%)	134,400,000
National Institute of Neurological Diseases & Stroke	102,648,000 (+7.9%)	95,496,000
National Institute of Allergy & Infectious Diseases	98,849,000 (+7.9%)	98,431,000
National Institute of General Medical Sciences	160,655,000 (+7.9%)	150,091,000
John E. Fogarty International Center for Advanced Study in Health Sciences	3,652,000 (+7.9%)	3,222,000
National Heart & Lung Institute	195,974,000 (+7.9%)	194,448,000
<u>Special Targeted Programs</u>		
Lead Based Paint	24,990,000	2,000,000
Alcoholism (P.L. 91-616)	100,000,000	- 0 -
Drug Abuse	700,000,000	381,000,000 (Presidential announcement)
<u>LABOR PROGRAMS</u>		
Public Service Employment	1,000,000,000	1,000,000,000
Neighborhood Youth Corps	270,700,000	165,700,000
Summer Jobs Programs		

LETTER OF HON. WALTER F. MONDALE, U.S. SENATOR FROM
MINNESOTA

HARRISON A. WILLIAMS, JR., N.J., CHAIRMAN
JENNINGS RANDOLPH, W. VA.
CLAIBORNE FELL, R.I.
EDWARD M. KENNEDY, MASS.
GAYLORD NELSON, WIS.
WALTER F. MONDALE, MINN.
THOMAS F. EAGLETON, MO.
ALAN CRANSTON, CALIF.
HAROLD E. HUGHES, IOWA
ADLAI E. STEVENSON III, ILL.

JACOB K. JAVITS, N.Y.
WINSTON PROUTY, VT.
PETER H. DOMINICK, COLO.
RICHARD S. SCHWEIKER, PA.
BOB PACKWOOD, OREG.
ROBERT TAFT, JR., OHIO
J. GLENN BEALL, JR., MD.

STEWART E. MCCLURE, STAFF DIRECTOR
ROBERT E. MAGLE, GENERAL COUNSEL.

United States Senate

COMMITTEE ON
LABOR AND PUBLIC WELFARE
WASHINGTON, D.C. 20510

HR

July 20, 1971

Honorable Warren G. Magnuson
Chairman
Subcommittee on Labor/HEW
Appropriations
United States Senate
Washington, D. C. 20510

Dear Maggie:

Appropriations for HEW are at the heart of the current debate about reordering national priorities. The Administration has said a great deal about helping people, but a number of its budget recommendations belie that concern.

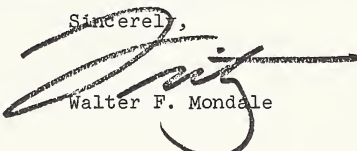
As you recommend HEW appropriations for the next year, I hope that you can look closely at a number of areas that I think are being short-changed. I have enclosed a series of specific recommendations.

I would appreciate it if this letter and enclosures could be made a part of the hearing record.

I bring these problems to your attention because I know you, too are dedicated to the solution of our country's human problems. You can be sure I will support you on the Senate floor and elsewhere in your constant struggle to bring appropriations up to the level of national needs.

With warmest personal regards.

Sincerely,


Walter F. Mondale

Enc.

PUBLIC LIBRARIES - SERVICES AND CONSTRUCTION

There can be no question that good libraries are valuable assets for balanced childhood development. They are important instruments for encouraging development of the reading skills educators are coming to emphasize more and more. Nonetheless, the Administration proposes to completely eliminate public library construction funds which were at \$7 million last year.

In addition, requested federal funds for public library services is down \$22.7 million, from \$40.7 million to \$18 million.

In both categories, I recommend appropriation, at a minimum, of funds at last year's levels.

HEALTH MANPOWER - DIRECT NURSING LOANS

As you know, extensive new legislation for nurses has just passed the Senate. Some of the bill's major components were loan provisions. Although the intention to expand this assistance was clear, the Administration has cut direct nursing loans by \$7.5 million, from \$17.1 to \$9.6 million. Until we are able to act on the increased authorization provided by S. 1747, we should at least avoid slipping backward, and maintain the program at its present level.

LIMITATION OF REIMBURSABLE SOCIAL SERVICES

The Administration has sought language to limit funds for needed and valuable services under public assistance, including day care. If we are to make it possible for welfare mothers to find employment, such services as day care must be furnished. Limiting reimbursement to the states would be not only unwise, but is inconsistent with the Administration's desire to encourage welfare recipients to become employed.

SPECIAL PROGRAMS FOR THE AGING

One segment of our population with severe problems that are often overlooked is the aged. I deplore the virtual moratorium this year on research for the aging. Another example is the cut in the Administration's request for special community programs for the aging, from \$9 million to \$5.4 million. It is time we demonstrated a proper concern for our senior citizens by increasing rather than decreasing funds for this program. I recommend appropriations of at least \$10 million.

ALCOHOLISM

The alcoholism bill passed in 1970 clearly intended a sweeping attack on alcoholism. The \$170 million authorized over a two year period is an indication of the urgency felt. Yet the Administration has proposed an increase of only \$6 million for existing programs and does nothing to initiate the large scale remedy Congress had in mind. In fact OEO is restricting its alcoholism benefits to Indians, which produces an 85% drop from last year.

If the intent of Congress is to be put into active reality, alcoholism programs need to be funded at the full level of authorizations and I so recommend.

COMMUNICABLE DISEASE

The Administration is proposing to spend \$6.3 million less this year to control communicable disease. The total for all such diseases is \$9 million, while a national commission recommended over \$23 million just to bring VD under control. It is clearly false economy to allow contagious diseases to maintain its grip on our population and then try to treat the people after they are sick. Funding levels in this area need to be increased at least \$2 million above last year's.

TRAINING GRANTS

The Administration is proposing a "comparative transfer" of research and training grants from NIH to the Bureau of Health Manpower Education. There is considerable concern in the medical community that this move and its accompanying appropriation request will strike a harmful blow to training grants. Two frequently noticed examples are psychiatry residence support and NIH support of biomedical graduate training.

It is suggested that \$23 million in training grants be restored just to keep us from losing ground in this vital area.

SOCIAL AND REHABILITATION SERVICE

I fully endorse the outstanding testimony of Dr. Frederick Kottke from the University of Minnesota who appeared before your Subcommittee on July 16th to comment on Social and Rehabilitation Services. I will not try to summarize his comments here, but will encourage favorable consideration of the \$25.6 million increase which he recommended.

HEADSTART

Now that Headstart has been transferred to HEW from OEO there is no excuse for not operating this popular and effective program at its maximum potential. I recommend appropriations at the full authorization level of \$500 million which is provided in the OEO amendments ordered reported by the Senate Labor and Public Welfare Committee today.

STATEMENT OF HON. FRANK CHURCH, U.S. SENATOR FROM IDAHO

Mr. Chairman, since January 1969 the unemployment rate has risen precipitously from 3.4 percent to 5.6 percent, adding nearly 2.8 million persons to the jobless rolls. Today there are more than 5 million unemployed individuals.

Practically all segments of our economy have felt the impact of this economic slowdown -- whether in the form of mass layoffs, shorter work weeks, smaller paychecks, rising prices, or just slow business. And all age groups have been affected by the widespread unemployment which has affected every region in the Nation. But, older workers and their families have been especially hard hit.

Today there are nearly 500,000 individuals 55 and older who have lost their jobs. This represents an 84 percent increase for this age group since January 1969. Many of these persons have discovered that they have lost more than their jobs. Thousands have also lost their pension coverage -- even though they may have worked most of their lives to provide a little "nest egg" for retirement.

Once unemployed, these older workers run a grave risk of being without work for a long period of time. Today there are 171,000 persons in the 55-plus age category who have been unemployed for 15 weeks or longer, or almost months. Compared with January 1969, this represents a startling 195 percent increase in their long-term joblessness.

For many of these individuals, Operation Mainstream has literally been a lifesaver. Thousands of disadvantaged older persons have been able to help themselves out of poverty by providing urgently needed public services in their communities.

An excellent example is the Green Thumb program, which is conducted by the National Farmers Union. Approximately 3,000 participants -- ranging in age from 55 to 94 -- have helped to beautify our Nation's countryside in many ways. For example, they have planted over 4 million trees; built hundreds of roadside parks for recreational purposes; and restored numerous historical sites.

Outstanding pilot programs -- such as Green Thumb, Green Light, Senior Aides, and the Senior Community Service projects -- have provided ample evidence of the soundness of the concept of community service by older Americans. It is for these reasons that I appear here today to urge increased funding for these successful programs. Specifically, I propose that the Administration's budgetary request for Manpower Training Services be increased by \$2.2 million, from \$1,566,396,000 to \$1,568,596,000. The purpose of this proposed \$2.2 million increase is to raise the budget estimate for Mainstream from \$38.8 million to \$41 million.

The benefits of this undertaking, I strongly believe, are many. For example, this can provide new job opportunities for the hard-care unemployed. At the same time, it can also provide an effective means for delivering badly needed public services -- services which many communities are now unable to provide for their citizens.

This \$2.2 million increase can also help to provide new Green Thumb programs in additional States.

Moreover, service programs can be tailored to the special needs of the elderly, especially for those who must work part-time to supplement inadequate retirement benefits. For many aged or aging Americans, serving in their communities can be a most rewarding experience. For others, it can mean a new career or an opportunity to engage in purposeful activity.

The enthusiastic acceptance of these existing demonstration programs strongly suggests that there are many low-income older persons in virtually every community who are ready, willing and able to perform services benefiting their localities. Greater utilization of their skills, experience and wisdom would not only assist the elderly job seeker, but the public as well.

Mr. Chairman, I urge prompt and favorable action on my amendment to provide an additional \$2.2 million for Operation Mainstream.

#####

Department of Labor Appropriations
 Manpower Training Services
Operation Mainstream

Proposal

Under the Church proposal, appropriations for Manpower Training Services would be increased by \$2.2 million, from \$1,566,396,000 to \$1,568,596,000. The purpose of this proposal is to raise the funding level for Operation Mainstream by \$2.2 million, from \$38.8 million to \$41 million.

Reasons

Operation Mainstream (\$2.2 million increase)

1. As of June 1971, unemployment for persons 55 and older had reached nearly 500,000 -- approximately 84 percent greater than in January 1969.
2. During this same period their long-term joblessness (15 weeks or greater) has increased by 185 percent. Today 171,000 individuals in the 55-plus age category have been out of work for 15 weeks or longer.
3. Depressing as these statistics are, they still reflect only a small part of the overall grim unemployment picture for older workers. These figures, for example, do not include the labor force drop-outs -- those who have given up the active search for work. If current labor force participation trends continue, one out of every six men aged 55 to 59 will no longer be in the work force by the time he reaches his 64th birthday. Ten years ago, this ratio was only one out of eight.
4. For many of these hard-core unemployed workers, Operation Mainstream has been literally a lifesaver.
5. Mainstream not only helps more than 12,000 individuals to help themselves out of poverty, but it also provides helpful community services.

Operation MainstreamProposalReasons

6. For many older Americans, Mainstream pilot programs (such as Green Thumb, Green Light, Senior Aides, and the Senior Community Service programs) provide a second career for disadvantaged individuals. For others, Mainstream provides a most rewarding experience in terms of helping other people in their communities.
7. With this additional funding, enrollment in Mainstream could be increased from 12,100 to 12,800 -- approximately 6 percent.
8. Moreover, with this funding increase, programs such as Green Thumb could be launched in new States (Green Thumb is now in operation in 17 States).

STATEMENT OF HON. HUBERT H. HUMPHREY OF MINNESOTA

HUBERT H. HUMPHREY
MINNESOTA

United States Senate

WASHINGTON, D.C. 20510

July 16, 1971

HK

The Honorable Warren G. Magnuson
United States Senate
Washington, D. C. 20510

Dear Warren:

Thank you for the consideration that was given to my fellow Minnesotan, Dr. Frederic Kottke of the University of Minnesota College of Medicine. His testimony in support of additional appropriations for physical medicine and rehabilitation services carefully documents the need of additional funds for these vital medical and health care programs. I do hope that you will give his testimony the most careful and serious consideration. Dr. Kottke is one of the outstanding men in this field and is highly regarded not only in America but throughout the world.

Now may I call your attention to another matter about which I have spoken to you; namely, the National Medical Library and its program of service to our colleges of medicine, our regional medical centers, and the American medical profession. That Library has been suffering from lack of appropriations for years; in fact, its appropriation has been practically static the last several years. This means that, with the inflation and the cost of services going up, the appropriation for the Medical Library has resulted in a reduction in the work that the Library can do and in the kind of assistance that it can extend to doctors, regional medical centers, and universities.

I have had a long-term interest in the National Medical Library, starting back in the 1950's when I was holding hearings on the subject of bio-medical information. The National Medical Library provides a very valuable service to our medical profession and to our colleges of medicine. I have

The Honorable Warren G. Magnuson

Page 2

July 16, 1971

recently visited the Library and asked the people out there to give me some documentation as to their needs. Enclosed is a folder that represents the information that I requested. I hope you will take the time to look it over. It would be most helpful.

Sincerely,

A handwritten signature in dark ink, appearing to read "Hubert H.", written in a cursive style.

Hubert H. Humphrey

STATEMENT OF BUDGET REQUIREMENTS FOR
NATIONAL LIBRARY OF MEDICINE IN FY 1972

The National Library of Medicine is responsible for acquiring and organizing the steadily increasing volume of biomedical information produced in the United States and abroad. It is also involved in providing financial and other assistance to medical libraries throughout the country, and in exploring new applications of technology to promote the most efficient processing of biomedical information. These tasks are crucial to improving medical communications for health services, education and research. At the same time that the NLM and other medical libraries are trying to keep pace with an unprecedented information explosion, the resources essential to support this effort have not been made available. No adequate cost-of-living increment has been provided to defray the rapidly increasing operating costs. If the Library is to function effectively as a vital part of the Nation's effort to advance biomedical research and improve health care, it must have the financial and human resources with which to work. Table 1 depicts the relatively stable budget and personnel situation that has existed for the past five years.

An optimal level of funding would require that an increase of approximately \$3.5 million and 13 new positions be added to the present budget for fiscal year 1972: approximately \$2 million for Medical Library Assistance (grants) and \$1.5 million for the Library's intramural programs (Direct Operations). An explanation of how the additional funds would

be used, program by program, is provided in the accompanying narrative and in the summary table. (See Table 2).

As a minimal increase it is requested that \$2 million and 13 new positions be added to the present budget for fiscal year 1972: \$800,000 for Medical Library Assistance and \$1.2 million for the Library's intramural programs (Direct Operations). An explanation of how the additional funds would be used under the minimum level plan is also provided in the accompanying narrative and in the summary table. (See Table 3).

NLM APPROPRIATIONS AND PERSONNEL DATA - FISCAL YEARS 1968 THROUGH 1972
(Dollars in Thousands)

<u>Year</u>	<u>Appropriations</u>	<u>Personnel</u>
1968	\$21,674	536
1969	18,160	470
1970	19,573	467
1971	21,436	467
1972 (Estimate)	21,981	474

OPTI REQUEST

APPROPRIATIONS AND BUDGET DEFICIENCIES

NATIONAL LIBRARY OF MEDICINE
(In Dollars)

ACTIVITY	FY 1971		FY 1972		FY 1972		DEFICIT	
	Pos.	Amount	Pos.	Amount	Pos.	Amount	Pos.	Amount
Extramural Programs (Medical Library Assistance):								
Training.....	---	1,000,000	---	1,000,000	---	1,200,000	---	200,000
Special Scientific Projects.....	---	5,000	---	95,000	---	95,000	---	---
Research.....	---	590,000	---	600,000	---	750,000	---	150,000
Library Resources.....	---	2,205,000	---	2,105,000	---	3,000,000	---	895,000
Regional Medical Libraries.....	---	1,912,000	---	2,002,000	---	2,500,000	---	498,000
Publications Support.....	---	280,000	---	290,000	---	500,000	---	210,000
Subtotal.....	---	5,992,000	---	6,092,000	---	8,045,000	---	1,953,000
Intramural Programs (Direct Operations):								
Lister Hill National Center for Biomedical Communications.....	10	1,370,000	17	1,398,000	17	1,898,000	---	500,000
National Medical Audiovisual Center.....	105	2,023,000	105	2,127,000	110	2,327,000	5	200,000
Library Operations.....	274	8,016,000	247	8,125,000	252	8,425,000	5	300,000
Toxicology Information.....	18	1,237,000	18	1,237,000	21	1,737,000	3	500,000
Review and Approval of Grants.....	32	665,000	32	704,000	32	704,000	---	---
Program Direction.....	55	2,133,000	55	2,298,000	55	2,298,000	---	---
Subtotal.....	467	15,444,000	474	15,889,000	487	17,389,000	13	1,500,000
TOTAL.....	467	21,436,000	474	21,981,000	487	25,434,000	13	3,453,000

MINI REQUEST

APPROPRIATIONS AND BUDGET DEFICIENCIES

NATIONAL LIBRARY OF MEDICINE

(in Dollars)

ACTIVITY	FY 1971		FY 1972		FY 1972		FY 1972		DEFICIT
	Pos.	Amount	Pos.	Amount	Pos.	Amount	Pos.	Amount	
Extramural Programs (Medical Library Assistance):									
Training.....	---	1,000,000	---	1,000,000	---	1,200,000	---	200,000	
Special Scientific Projects.....	---	5,000	---	95,000	---	95,000	---	---	
Research.....	---	590,000	---	600,000	---	650,000	---	50,000	
Library Resources.....	---	2,205,000	---	2,105,000	---	2,505,000	---	400,000	
Regional Medical Libraries.....	---	1,912,000	---	2,002,000	---	2,102,000	---	100,000	
Publications Support.....	---	280,000	---	290,000	---	340,000	---	50,000	
Subtotal.....	---	5,992,000	---	6,092,000	---	6,892,000	---	800,000	
Intramural Programs (Direct Operations):									
Lister Hill National Center for Biomedical Communications.....	10	1,370,000	17	1,398,000	17	1,898,000	---	500,000	
National Medical Audiovisual Center.....	105	2,023,000	105	2,127,000	110	2,327,000	5	200,000	
Library Operations.....	274	8,016,000	247	8,125,000	252	8,425,000	5	300,000	
Toxicology Information.....	18	1,237,000	18	1,237,000	21	1,437,000	3	200,000	
Review and Approval of Grants.....	32	665,000	32	704,000	32	704,000	---	---	
Program Direction.....	55	2,133,000	55	2,298,000	55	2,298,000	---	---	
Subtotal.....	467	15,444,000	474	15,889,000	487	17,089,000	13	1,200,000	
TOTAL.....	467	21,436,000	474	21,981,000	487	23,981,000	13	2,000,000	

EXTRAMURAL PROGRAMS
(Medical Library Assistance)

The Medical Library Assistance Act (MLAA) of 1965 as amended provides support for expanded health information services through seven specific assistance programs: resources, regional medical libraries, training, research, publications, special scientific projects, and construction.*

The total (extramural and intramural) efforts of the National Library of Medicine in 1969 represented only 0.03% of the overall national fundings for health activities. However, the very existence of these funds is significant because they are unique and are the only existing mechanisms designed solely for the improvement of the resources and services of U.S. medical libraries.

The problem of biomedical communications is being steadily exacerbated by the rapidly increasing number of scientists who generate new knowledge requiring a vastly augmented number of publications. This information must be collected and made available by the medical libraries. They are rapidly being inundated.

I. TRAINING

NEED -

The NLM Training Programs are of two types: service and research. Major support is directed towards developing medical librarians and other information specialists who

* The construction program is no longer administered by the NLM.

will provide service to the health community. At the time of the passage of the Medical Library Assistance Act in 1965, it was estimated that several thousand more medical librarians were needed. The NLM programs at their current level of funding can only support approximately 100 trainees a year. It is hoped that these programs will have a catalytic effect. Through the training of leaders greater benefit will accrue than would be provided by the simple addition of 100 more librarians into the manpower pool. Because of the time and effort required to develop a proposed curriculum and a sound educational plan for submission for grant support, the NLM with its current level of funding has been forced to discourage new applicants from applying for training grants.

OPTIMAL LEVEL, \$200,000 -

This additional funding would allow the expansion of several highly successful training programs and provide for the support of several new programs to train information specialists other than librarians, such as specialists in the use of multi-media techniques and in medical education. It would also hopefully allow for the development of experimental training programs including short-term non-degree training or re-training for hospital and other medical librarians.

MINIMAL LEVEL, \$200,000 -

This is identical to the optimal level as it is felt that at least \$200,000 is essential if these programs are to attain a satisfactory operating level.

II. RESEARCHNEED -

The Research Grant Program supports research efforts to understand and improve the ways in which health knowledge is transmitted. The basic goal of the program is to develop better systems for handling information. The program is designed to learn how we can encourage health workers to take full advantage of the information systems now available and to develop new systems which are more responsive to their needs.

OPTIMAL LEVEL, \$150,000 -

At this level we would be able to support five or six additional research projects in areas of high priority need. Special efforts would be made to support projects which would adapt modern information processing techniques for use in medical libraries. Efforts would also be made to encourage studies designed to determine how the quality of care provided by the practicing physician, particularly in rural areas and in urban inner-cities (where there is limited availability of consulting services) can be improved through the provision of better information services.

MINIMAL LEVEL, \$50,000 -

At this level we will be able to support one or two high priority projects in areas of major need.

III. RESOURCES GRANTS

The Resources Grant Program improves the services available to health workers from their own libraries. The medical library is the only part of the health community which did not share appreciably in the increased health funding of the 1950's and early 1960's. By 1965, it was clear that if medical libraries were to serve a meaningful purpose there would need to be significant Federal aid for staff and for improved collections. During the first five years of the Medical Library Assistance Act, grants totalling more than \$11,800,000 were awarded to over 400 institutions in 49 states.

The program includes two types of grants. The first type, a small \$3,000 Improvement Grant is awarded to an institution only if it agrees to provide adequate space and at least a half-time worker for the library. The grant is not an operational subsidy for the library, but is intended to motivate the institution into making a commitment of continuing support which will exceed the Federal grant both in duration and amount.

The second type of grant is the Resource Project Grant, which is intended to stimulate established libraries to improve and expand the scope of their services. The project can be for a one- to three- year period and may propose anything from a reclassification of the collection to the introduction of innovative technology in librarianship.

NEED -

At the start of fiscal year 1971, the Library had 120 approved projects for \$650,000 which it was unable to

pay due to a lack of funds. During the first eight months of fiscal year 1971, under the amended resource grants program, applications for 400 projects were received requesting over 3 million dollars in first year support. The large demand clearly indicates a need for additional support in this area.

OPTIMAL BUDGET, \$895,000 -

This \$895,000 would significantly reduce the current backlog of approved unfunded projects. It would allow the funding of some 100 resource improvement grants to hospitals to stimulate the creation and improvement of basic library resources. It also would provide for the funding of some 400 project grants to aid larger libraries in improving the services provided to their primary users and in extending service to the surrounding communities.

MINIMAL BUDGET, \$400,000 -

This amount would allow us to proceed at only half the projected rate in meeting the needs for improving information services in hospitals and other health care institutions. Emphasis would be placed on the provision of improvement grants to primary health care institutions.

IV. REGIONAL MEDICAL LIBRARY PROGRAM

The Regional Medical Library Program is intended to improve library services for the entire health community through the provision of a coordinated program of document delivery and bibliographic services. The funding for this program has remained relatively constant for the last several years. During this same period a rapid rise in the number of professional and paraprofessional health schools has occurred. Recently additional demands have been placed on this system due to the requirements associated with the Library's development of its AIM-TWX computer-based on-line system of bibliographic retrieval. This increase in user population has been further aggravated by a decrease of \$500,000 of support for medical library services previously provided by the Regional Medical Program of the Health Services and Mental Health Administration. Given this context, the need for increased funding for this program becomes very clear. In addition, at the current level of funding it will be possible to provide only the minimal level of document delivery and reference services. There will be no chance to develop a much needed program designed to improve the methods of information delivery and to explore newer and more successful ways of providing information on a regional basis.

OPTIMAL LEVEL, \$498,000 -

At this level NLM would be able to support expanded inter-library loan and regionalized reference and MEDLARS service, as well as initiate a small grants program to explore better methods of providing regional service.

MINIMAL LEVEL, \$100,000 -

At this level it would only be possible to provide the additional funds necessary to keep pace with the growth in the provision on a regional basis of interlibrary loans.

V. PUBLICATIONSNEED -

The Publication Program attempts to ameliorate the problems created by the information explosion by supporting projects which synthesize and combine scientific information into more readily available and usable forms. The program also supports the writing of key articles in which a senior scientist reviews the relevant literature in a field and develops a critical study on an important and timely topic which will have wide applicability.

OPTIMAL LEVEL, \$210,000 -

With this increase in funding the Library will be able to support approximately eight additional publication projects. Special emphasis will be given to projects for making the latest research knowledge available in forms which are useful to the practicing health professional.

MINIMAL LEVEL OF FUNDING, \$50,000 -

This level of increased funding would allow the Library to support one or two high priority publication projects. Areas where critical reviews or other practitioner-oriented material is needed include cancer and heart disease and preventive medicine.

INTRAMURAL PROGRAMSI. LISTER HILL NATIONAL CENTER FOR BIOMEDICAL COMMUNICATIONS

The goal of the Lister Hill National Center for Biomedical Communications is to improve health care, medical education, and biomedical research through the development and application of information technology. The Center seeks ways in which such technology can be demonstrated to offer more cost-effective means of providing needed services. Each demonstration is a prototype which can provide valid information for assessing the utility and economics of the applications.

OPTIMAL LEVEL -

The present budget for fiscal year 1972 represents a \$100,000 decrease below the contractual level of the prior year's budget. The addition of \$500,000 would permit expansion of the developmental efforts of the Center. In particular it would allow: (1) \$200,000 for augmentation of the Alaska Satellite Communication Project; (2) \$175,000 for expansion of the New England interactive television network; and (3) \$125,000 for expansion of a new on-line national bibliographic service.

A. The Alaska Satellite Communications Project is now limited to communications which could in other parts of the country be handled by telephone. This limitation results primarily from the fact that high-frequency communications require terminal equipment which costs ten times as much as that required for VHF frequencies. The limitation is,

however, primarily a characteristic of the NASA Application Technology Satellites, not of future satellites, whose terminal equipment costs can be expected to drop sharply. Testing and use of higher frequency capabilities for medical services are urgently needed to provide direction to future satellite development. Launching such an experiment would require \$200,000 beyond the presently budgeted funds of the Center.

B. The New England Interactive Television Network is being implemented in segments. Present funding will allow development of sections of the network near Dartmouth, from Dartmouth to the University of Vermont, and from the University of Vermont to Montpelier. Only four or five hospitals can be included. The addition of \$175,000 would allow extension of the backbone microwave system between the two medical schools to include the University of New Hampshire and permit several more hospitals to be connected to the network. This in turn would allow more extended sharing of teaching between the schools and provide medical services to remote hospitals, a development which may open the way to a mutually supporting system of institutions for health care and medical education.

C. The National Library of Medicine will be instituting a national bibliographic service in fiscal year 1972, based on an experimental service (AIM-TWX) offered in 1971 and

providing hospitals and medical libraries access to the 100 most useful journals in clinical medicine. Over fifty hospitals and libraries have used the service and have been enthusiastic in their response to it.

One quarter of the requests entered into the system have been directly related to patient care. In such cases the system has proven extremely timely for physicians. Present funding will allow expansion of the service to major medical libraries in 1972, but not to a significant group of hospitals. The addition of \$125,000, would allow purchase of terminals for selected hospitals and thus permit further testing of the usefulness of such a service in translating health research into improved health care.

MINIMAL LEVEL-

A minimum of \$500,000 is required here, the same as in the optimal plan, to adequately fund this high priority program.

II. NATIONAL MEDICAL AUDIOVISUAL CENTER

The NMAC, which became part of NLM in 1967, plans and administers a program for improving the quality and increasing the use of biomedical audiovisuals in schools of the health professions and in the biomedical scientific community in general. The Center acquires and distributes films, videotapes, and other audiovisuals; provides reference and research services related to biomedical audiovisuals, as well as consultation on their development and use; and conducts research, training, and experimental production to develop media support for medical education.

OPTIMAL LEVEL -

The NMAC has shifted its program emphasis away from standard audiovisual production to imaginative manipulation of its media in support of all phases of medical education. The audiovisuals which NMAC formerly produced for other agencies brought a significant reimbursement income, which in fiscal year 1971 amounted to \$200,000. The decline in production will cause a decrease in reimbursement income. This in turn will create a deficit in funds available for purchasing consumable supplies, since only five percent of the present budget for fiscal year 1972 can be used for such purchases. To make up this deficiency in the 1972 budget, the NMAC will require an additional \$100,000. The

Center will also need five new positions if it is to make the most efficient use of its resources in pursuing these innovative programs. The cost of these positions, as well as small upward adjustments necessary to keep pace with inflation, add another \$100,000 to the NMAC's requirements for a total increase of \$200,000 above the present 1972 budget.

MINIMAL LEVEL -

The requirements for additional funding which are outlined above, when increasing costs and declining reimbursement income are taken into account, would enable the NMAC only to continue approximately at its present level of program activity. The NLM does not believe, therefore, that its minimal level requirements for NMAC can be placed any lower than the \$200,000 requested above.

III. LIBRARY OPERATIONS

Prior to 1965 the National Library of Medicine consisted entirely of what today are its Library Operations (LO). Still the NLM's largest single component, LO provides bibliographic, reference and loan services as a central resource for a nationwide network of regional and local medical libraries. It is also responsible for a growing list of NLM bibliographic publications, the most comprehensive of which, Index Medicus, is a monthly listing of citations to current world-wide biomedical literature. Index Medicus, the annual Cumulated Index Medicus, and the other published bibliographies are all produced from a computerized data base stored in MEDIARS, the Library's Medical Literature Analysis and Retrieval System. That data base is also used by Library Operations reference staff to provide individual bibliographies to health professionals.

OPTIMAL LEVEL -

Among its other functions, Library Operations is responsible for acquiring for the NLM collection the most significant portion of the world's output of biomedical books and monographs and a steadily increasing number of journals. Although the cost of these publications has increased at a rate of 12% annually--much more rapidly than the consumer price index--the NLM has not been provided with a cost-of-living increment. The increased output of literature has also placed heavy burdens on the Library's manpower. Accordingly, the NLM is requesting \$120,000 to

cover higher costs of acquisitions necessary for the collection; \$105,000 for increased costs of providing service, including expenses such as postage and supplies; and \$75,000 for five new positions to alleviate the heavy burden currently placed on existing staff. This request represents a total increase of \$300,000 over the 1972 budget estimate for Library Operations.

MINIMAL LEVEL -

Because the requirements for additional funding outlined above are all related to increased costs of doing business and added burdens on existing manpower, the same requirements--\$300,000 and five new positions--are necessary for Library Operations to function at a minimal level.

IV. TOXICOLOGY INFORMATION PROGRAM

The basic objective of the Toxicology Information Program (TIP) is the implementation of the 1966 President's Science Advisory Committee (PSAC) Report on the "Handling of Toxicological Information." As the PSAC Panel found, the sources of toxicological information and data are extremely voluminous and are scattered not only in the scientific literature but throughout the files of Federal and State agencies, universities, private research centers, and industrial laboratories.

Since its establishment within the National Library of Medicine in 1967, the Toxicology Information Program (TIP) has considered its mission to be: (1) the creation of toxicology data banks with data taken from the scientific literature, the files of collaborating Government agencies, and from industry; and (2) the dissemination of data and information to the scientific community.

The relatively low-level funding that has been available to this Program since its inception has made it necessary to take a fairly narrow approach in both these areas--information collection and dissemination--and the Program has restricted itself almost entirely to the subject area of pesticide toxicology. However, there is now a general awareness of the potential dangers arising from the many chemical substances entering the environment. There is also a concomitant expansion of Government regulatory activities connected with occupational and environmental hazards due to chemicals. Therefore, it is clear that a national toxicology information and data program must be expanded

eventually to encompass all classes of substances that threaten man and the ecosystems which support his existence.

The Toxicology Information Program (TIP) is working on the premise that the following solutions to these problems should be implemented by TIP at the earliest possible date, contingent only on adequate funding.

- (1) Development and maintenance of centralized toxicology data bases (usually in computerized systems);
- (2) provision for unrestricted access to these data bases, either through queries to the program or via remote terminals located at the facilities of the government agency, corporation, university, or other user;
- (3) preparation and dissemination of printed "products" such as state-of-the-art reports, evaluated and analyzed information, and data compilations;
- (4) expanded development of intensive collaboration with other Federal agencies, to provide more mutual access to information and data files located in the various agencies;
- (5) encouragement of cooperation among industrial companies--perhaps through trade associations--so that they will provide toxicological data and information to TIP as a national focal point, for inclusion in centralized data bases, accessible to all users in Government and in the private sector.

OPTIMAL LEVEL, \$500,000 -

To perform these activities adequately, TIP would require an additional \$500,000 and three positions in fiscal year

1972. The money would be allocated to the following activities:

(1) Increased data extraction and file building efforts concerning the toxicology of compounds that affect man and his food chain, either in the general environment or through occupational exposure, with particular emphasis on industrial substances such as heavy metals and synthetic organic chemicals and acute as well as long-term toxic effects (e.g., carcinogenicity, teratogenicity, and degenerative effects on the cardiovascular system)--\$205,000.

(2) Increased preparation by subject experts of state-of-knowledge reports, technical reviews, and data compilations, for distribution to the scientific community--\$210,000.

(3) Expanding the content of the on-line interactive computer files with formatted data, as well as with abstracts and other whole text files; and increasing the participation of other Government agencies, research institutes, universities and industries in such systems, both as donors of information and data files and as users of the computerized information pool--\$85,000.

MINIMAL LEVEL, \$200,000 -

If an additional \$200,000 and three positions became available -- in fiscal year 1972 the funds for the above activities would generally be reduced proportionately.

HUBERT H. HUMPHREY
MINNESOTA

United States Senate

WASHINGTON, D.C. 20510

March 17, 1971

The Honorable Warren Magnuson
United States Senate
Washington, D. C. 20510

Dear Warren:

As you may recall, one of my major interests during my term in the Senate from 1958-1964, when I served as Chairman of the Subcommittee of the Senate Government Operations Committee, was the importance of coordinating the activities of federal agencies in the area of information retrieval and dissemination. Our subcommittee was instrumental in establishing a Clearing House for Federal, Scientific and Technical Information. Subsequently, we were able to secure much needed legislation for improving medical libraries and health communications services through the passage of the Medical Library Assistance Act of 1965.

The Medical Library Assistance Extension Act of 1970 provided a three-year extension of the original legislation. This act was unanimously approved because both houses of Congress agreed that major health library deficits continue to exist but have in fact increased as demands for health information continue to expand at an alarming rate. The Medical Library Assistance Extension Act was specifically designed to help correct this situation.

I have recently received a letter from Dr. Luther Terry, now Vice President of the University of Pennsylvania in Philadelphia and former Surgeon General, expressing his concern over the fact that this program has never been fully funded. As a matter of fact, the appropriations have averaged only 43% of funds actually authorized by Congress.

The Honorable Warren Magnuson
Page 2
March 17, 1971

I am further told by the distinguished former Surgeon General, who previously served as an advisor to the National Library of Medicine, that these programs, specifically designed for improving library collections and services to hospitals, medical schools and allied health institutions, need at least another \$2 million above the current budget request if we are to keep up with the "publication explosion" in medical sciences and the need for accurate and speedy information delivery systems.

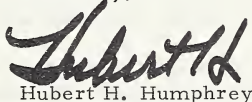
In your own state of Washington, there are many small and medium sized hospitals that have a serious need for these funds which will in turn benefit the general practitioner as well as the research scientist. The basis of good health care and delivery of adequate medical service is intrinsically related to the amount and quality of information that is readily accessible to the physicians, researchers, medical students, and all the allied health professions.

Dr. Terry has explained to me that the man who is the most knowledgeable about the needs is Dr. Lee L. Langley, Associate Director for Extramural Programs, National Library of Medicine. He administers the library grant programs and is most keenly aware of the urgency for an increased appropriation at this session of the 92nd Congress.

It would be a favor to me, Warren, because I am so interested in this subject, if you would invite Dr. Langley in to give you a more detailed briefing than is possible by this letter.

I'll be talking to you in the near future. Many thanks.

Sincerely,

A handwritten signature in dark ink, appearing to read "Hubert H.", with a stylized flourish at the end.

Hubert H. Humphrey

STATEMENT OF HON. EDWARD W. BROOKE, U.S. SENATOR FROM MASSACHUSETTS

ALLEN J. ELLENDER, LA., CHAIRMAN
 JOHN L. MCCLELLAN, ARK.
 WARREN G. MAGNUSON, WASH.
 JOHN C. STENNIS, MISS.
 JOHN O. PARTONE, R.I.
 ALAN BIBLE, NEV.
 ROBERT C. BYRD, W. VA.
 DALE W. HICKEY, WYO.
 MIKE MANSFIELD, MONT.
 WILLIAM PROXMIRE, WIS.
 JOSEPH H. MONTOYA, N. MEX.
 DANIEL K. INOUYE, HAWAII
 ERNEST F. HOLLINGS, S.C.

MILTON R. YOUNG, N. DAK.
 KARL E. MUNDT, S. DAK.
 MARGARET CHASE SMITH, MAINE
 ROMAN L. HRUSKA, NEBR.
 GORDON ALLOTT, COLO.
 NORRIS COTTON, N.H.
 CLIFFORD P. CASE, N.J.
 HIRAM L. FONG, HAWAII
 J. CALDER ROGERS, DEL.
 CHARLES H. Percy, ILL.
 EDWARD W. BROOKE, MASS.

THOMAS J. SCOTT, CHIEF CLERK
 WM. W. WOODRUFF, COUNSEL

United States Senate

COMMITTEE ON APPROPRIATIONS

WASHINGTON, D.C. 20510

July 23, 1971

Honorable Warren Magnuson
 Chairman
 Subcommittee on Labor, Health, Education and Welfare
 Room 1108, New Senate Office Building
 Washington, D. C. 20510

Dear Mr. Chairman:

I had sincerely hoped to be able to take a much more active part in the deliberations of the Subcommittee. Regretfully, however, I am experiencing a slow recovery from my bout with viral pneumonia and am still functioning on a very restricted schedule. Thus, I will not be able to attend the Subcommittee markup on the bill.

However, I have carefully reviewed the testimony of the many witnesses who have appeared before the Subcommittee and wish to share with you my particular interest in certain appropriations requests.

I clearly recognize that determining priorities within the health budget is an extremely difficult undertaking, for on the merits, virtually every program deserves the maximum requested funding. My letter, therefore, is not intended to argue solely for additional appropriations for the items I am emphasizing, but merely to focus attention on the programs I believe to be of the highest priority.

My first concern of course is with the President's request for \$1-billion for emergency employment. You and I both know the serious consequences of unemployment among the people of our state. Massachusetts now has an unemployment rate well above the national average, with 185,000 people out of work. This appropriation is essential if those who are currently out of work are to be returned to productive activity, and if a healthy economy is to be restored.

Secondly, I am concerned with the area of mental health. It has

been estimated that nearly one in ten Americans suffers from some form of mental illness and approximately 40% of the country's hospital beds are occupied by the mentally ill. In a time when the nation is witnessing a great increase in the use of drugs, as well as increases in the personal disorientations manifested in crime, alcoholism, and delinquency, I believe strongly that we must accelerate our efforts to provide adequate services for the mentally ill.

Community Mental Health Centers have been very successful in promoting new and enlightened methods of treatment. Effective programs operating at local levels are a rarity in any discipline and should be encouraged wherever possible. With this in mind I urge approval of an appropriation of \$25 million in construction grants, and an increase in staffing grants of another \$25-million, bringing the funds for this category up to \$130 million. There is already a backlog of \$24-million in approved but unfunded projects and I have no doubt but that the full amount could be used.

Numerous witnesses have repeatedly emphasized that adequate funds for research and training is actually an investment in future budgetary savings. Clearly prevention and early treatment of a disease is desirable both from a humanitarian and budgetary standpoint. I therefore urge that we appropriate the full authorization of \$20 million to Child Mental Health. In addition, I hope that the Subcommittee will restore the \$6.7 million cut in the psychiatric residency training program. Estimates indicate that only 5% of the children who need psychiatric treatment are currently able to receive help.

The University Affiliated Programs for the Mentally Retarded is also a very progressive and successful program. I have had the opportunity to talk to the directors of several of the programs and I have great confidence in them and the admiration for the advances they have made. I therefore urge the approval of an additional \$4,550,000 above the budget recommendation for this program, as requested by the Research Center Directors.

In December, Congress unanimously passed the Comprehensive Alcoholism Prevention and Treatment Act which authorized an expenditure of \$100 million. My understanding is that the budget requests no funds for this measure. There are presently nine million alcoholics in the United States. An estimated 50 percent of all highway accidents are caused by drivers under the influence of alcohol. Surely this problem is of national concern and should receive our attention. Therefore, I recommend that

\$40 million be appropriated for this program.

Turning briefly to lead paint poisoning, the HEW "White Paper" documented that 400,000 children were poisoned annually by paint with lead in it. Sixteen thousand of these required treatment; 3,200 incurred moderate brain damage; 800 had been so severely damaged that they required treatment for the rest of their lives; 200 died. Obviously this is a condition that can no longer be tolerated. The cure is already known and future prevention is within our power. We must provide adequate detection and treatment programs and I urge the appropriation of the full \$5 million recommended by the House Report.

Senator Frank Church, Chairman of the Committee on Aging, of which I am a member, stressed the need for increased funding for programs affecting the nation's elderly. He outlined areas which are particularly meritorious and in which appropriations should be increased. I wish to emphasize the community programs and research and training in NICHD. I strongly support the Gerontological Society's recommendation that funding for NICHD be raised from \$103,232,000 to \$108,052,000 with a provision for a line item of \$12 million for aging research. I hope that the Subcommittee will look favorably on this request for a total appropriation increase of \$21,020,000.

I also favor increasing the funding for Regional Medical Programs to its 1970 level. I know that you are fully aware of the successes of several of these programs and again there can be no question of the need to provide and support adequate services at the local level.

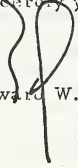
I also urge an increase of \$8 million for Schools of Public Health as requested by the Association of Schools of Public Health. This would include an increase of \$2.1 million for Federal trainees, \$3 million for project training and \$3 million in formula grants. The 17 Schools of Public Health have provided a great service in training public health personnel and face a serious reduction in effort if these funds are not forthcoming.

Finally, I concur with the House Report in urging that the budget for rat control project grant programs should be restored to its 1971 level of funding and that the 110% limitation on the amount of funds that can be granted to a state for services, training and administrative expenses should be eliminated.

Mr. Chairman, your attention to this expression of my interest in the foregoing items is sincerely appreciated. Permit me to express my highest respect for your leadership and counsel, and accept my assurances that I will in the future play a far more active role as a member of this Subcommittee.

With kind regards, I am

Sincerely yours,



Edward W. Brooke

EWB/rrm

cc: Senator Cotton

STATEMENT OF HON. FRANK CHURCH, U.S. SENATOR FROM IDAHO

Mr. Chairman, thank you for the opportunity to appear here this morning to testify on issues of vital concern for the Nation's elderly.

As Chairman of the Senate Committee on Aging, I also wish to compliment you and your Subcommittee for the genuine interest that you have always demonstrated for older Americans. This was certainly the case last year when you helped provide \$500,000 to fund the Retired Senior Volunteer Program for the first time. It was also demonstrated when you approved an additional \$500,000 for the Foster Grandparent program, which helps low-income elderly persons to help themselves by providing vital supportive services for young, disadvantaged children. And it was clearly apparent when \$650,000 in funding was provided to pay for the elderly's delegate expenses to the White House Conference on Aging.

These measures, I am pleased to say, had strong bipartisan support, as so often occurs on issues affecting the aged.

This was forcefully demonstrated earlier this year when the Administration submitted its budget. As you may recall, that budget called for a \$2.5 million cutback in funding for the Older Americans Act. It would have provided only 28 percent of the \$105 million authorized to be spent. And it would have cut many programs to the bone, despite an urgent need for stepped-up funding.

However, members from both sides of the aisle protested these shortsighted and ill-advised reductions. Joint hearings -- evaluating the Administration on Aging and the progress of the White House Conference on Aging -- were then held in March and April by the Committee on Aging and the Subcommittee on Aging of the Senate Labor and Public Welfare Committee. At our concluding hearing, the Administration not only rescinded its original budgetary request, but also proposed a \$7.85 million increase in funding for special programs for the aging and a \$2.15 million raise for aging research and training.

However, the revised budget requests only about 38 percent of the authorized funding under the Older Americans Act. For these and other reasons, I strongly believe that far-reaching action is still needed on several fronts to improve the budget.

SPECIAL PROGRAMS FOR THE AGING

Particularly important is the need for a \$10.5 million increase in funding for special programs for the aging -- raising the Administration's request from \$33.7 million to \$44.2 million. Of this total, I propose that the community programs on aging (Title III) be increased from \$9 million to \$15 million, and the Foster Grandparent program from \$10.5 million to \$15 million.

Community Programs on Aging: Perhaps the lifeline of services for older Americans is the community programs on aging which help the elderly in a wide variety of ways, including transportation for the infirm and frail; home delivered meals; homemaker and home health services; telephone reassurance calls; and many others.

For many older Americans these services mean the difference between living independently and being institutionalized at a much higher public cost. And for some, these services have literally meant the difference between life and death.

However, the \$9 million budget estimate will fund approximately 700 community projects, the same number as during the past fiscal year. But, compared with fiscal year 1969, this represents a reduction of about 400 projects. Yet, nearly 6 years of successful operations have amply demonstrated the need to expand community programs on aging, instead of holding the line or retreating.

Under my proposal, an additional 460 community programs could be funded. And the number of elderly persons being served would be increased from 1 million to nearly 1.7 million. With these services, more older Americans would be able to live in dignity, instead of subsisting.

Foster Grandparent Program: Another area of special concern is the Foster Grandparent program. In a recent report from the Administration on Aging to the Senate Committee on Aging, we were informed that "hundreds of requests for Federal help to start new projects are turned away each year for lack of funds." Yet the budget for fiscal 1972 requests the same amount, \$10.5 million, as was appropriated last year. This will fund about 68 projects.

However, my proposed funding increase -- from \$10.5 million to \$15 million -- would add 30 new projects to the Foster Grandparent program. It would also provide new opportunities for satisfying part-time employment for 1,800 low-income persons 60 and older, raising the present total from 4,200 to 6,000. An additional 3,600 neglected, retarded and otherwise disadvantaged children would receive important supportive services which are not now available.

These are compelling reasons. But there are others. In a recent report, entitled "Cost-Benefit Analysis of the Foster Grandparent Program," it was pointed out:

"The funding rate of the Foster Grandparent Program is thus a sound investment having a rate of return of at least 200% or 300% in terms of direct benefits and savings."

Yet, the market for their services has hardly been tapped. According to the latest data available, more than 8,000 eligible elderly poor are on the waiting list at the 68 projects. In addition, there are thousands -- perhaps hundreds of thousands -- of potential applicants who know nothing about the existence of this program.

RESEARCH AND TRAINING

One of the major problems in the field of aging is the low priority assigned to research and training. For example, of the \$69.15 million requested for research and training to be administered by the Social and Rehabilitation Service, only \$5.8 million is specifically earmarked for aging research and training.

Mr. Chairman, I urge that funding for SRS research and training be increased by \$3.7 million from \$69.15 million to \$72.85 million. Specifically, I propose that research for Social and Rehabilitation projects be raised from \$24.125 million to \$25.825 million. This would be designed to boost funding for aging research by \$1.7 million, from \$2.8 million to \$4.5 million. Additionally, I urge that appropriations for training in the field of aging be increased from \$3 million to \$5 million.

Research: This is a modest increase, considering the documented needs in both of these crucial areas. But this proposal can have important as well as far reaching benefits.

For example, this proposed increase could fund an additional 25 research and demonstration projects. With this money, new studies could be launched to consider alternative living arrangements for the elderly and other important issues affecting older Americans.

Important but still unanswered questions about the aging process present cogent arguments for expanding R & D efforts. Moreover, even though present research and demonstration has been limited, it has repeatedly proved to be a sound investment.

Training: A dearth of trained personnel continues to be one of the most pressing problems for upgrading or providing services for the elderly. According to one report -- "The Demand for Personnel and Training in the Field of Aging" -- it is estimated that more than 80 percent of all persons serving the elderly have never had formal preparation for their work.

But unless action is taken now to expand training opportunities, the elderly will continue to face a critical shortage of qualified personnel to provide the care and services which they need.

Adequate funding is, of course, a number one priority. Under the proposed budget, approximately 352 persons will participate in the long-term training program. However, my proposal for an additional \$2 million could make available new opportunities for 440 professionals to provide vital leadership during this decade. Or, it could train 20,000 persons to participate in the short-term courses. From an economic standpoint, additional funding for training would also seem to be a very prudent investment. It can, for example, help assure that more older Americans receive the services which they need for health and

independent living. This can help to reduce the rising costs of institutionalized care.

NATIONAL INSTITUTE OF CHILD HEALTH AND HUMAN DEVELOPMENT

Major increases in funding are also urgently needed for research and training in the National Institute of Child Health and Human Development. Unlike research under the Older Americans Act, gerontological research under NICHD focuses on biomedical, sociological and psychological aspects of aging. In addition, the aging branch of NICHD trains professionals in biomedicine. On the other hand, training under the Older Americans Act is designed primarily for practitioners, such as managers of retirement homes.

Quite clearly, the NICHD budget for aging research and training is in full scale retreat, although there is a critical need for increased efforts. Compared with last year's appropriation, the Administration is proposing a 12 percent cutback -- from \$8.762 million to \$7.180 million.

Mr. Chairman, I strongly support the Gerontological Society's recommendation that funding for NICHD be raised from \$103,232 million to \$106,052 million. This would have the effect of increasing the appropriations for aging research and training from \$7.180 million to \$12 million, for a \$4.820 million boost in funding.

With this money, further research can be initiated for treatment of chronic diseases which plague aged and aging Americans. In addition, social and psychological research can be conducted to make the later years more satisfying and rewarding. Moreover, additional personnel can be trained to serve older people in medicine.

Dr. Jerome Kaplan summed up the need for this approach when he testified before the Senate Committee on Aging in March:

"We must have knowledge about the aging process, disease, and their related behavioral components if we are to deal effectively with the needs of our people. Simultaneously, we must have the training and education programs that produce qualified professionals who provide services to our people."

"There is one axiom: research, training, professional education, and services go hand in hand. Each is necessary to the other but not sufficient in itself."

SENIOR OPPORTUNITIES AND SERVICES

Now, I would like to turn to funding for the Office of Economic Opportunity. The Administration's budget proposes that \$830.4 million be spent for community development programs. Of this total, \$388 million is recommended for community action operations, including \$8 million for the Senior Opportunities and Services program.

Mr. Chairman, I urge a \$2 million increase in funding for community development programs, from \$830.4 million to \$832.4 million. The purpose of this amendment is to increase appropriations for SOS by \$2 million, from \$8 million to \$10 million.

The reasons for taking this action, I believe, are many. SOS has been one of the most successful of all the poverty programs. Approximately 800,000 elderly persons are served in many ways, including training to prepare older persons for part-time or full-time jobs; screening applicants for subsidized housing units; consumer education programs to assist aged persons in buying food and budgeting their money; and employment opportunities in these programs. With my proposed \$2 million increase, an additional 200,000 older persons could be served.

A recent evaluation by Kirschner Associates found that SOS programs are an effective means for identifying and meeting the needs of the aged poor. Moreover, the report noted:

---SOS programs have a low unit cost per beneficiary.

---The projects have produced significant improvements in the aged's sense of dignity as well as their physical and emotional well-being.

---SOS programs have been enthusiastically accepted at the community level.

In fact, SOS projects have generated 40 cents in local resources for every Federal dollar spent, which is the largest nonfederal share of any OEO program.

CONCLUSION

Mr. Chairman, the net impact of my proposals would be to provide an appropriations increase of \$21.02 million for several programs serving the elderly. This is a very modest increase considering their urgent needs. But, I also believe it is realistic considering the budgetary situation and the many requests you receive to increase funding for other programs.

In terms of added costs, this will amount to about a dime per person in the United States. Surely we can afford this extra cost for 20 million older Americans, who have worked most of their lives for the progress we now enjoy.

* * * * *

Department of Health, Education and Welfare Appropriations
Social and Rehabilitation Service
Research and Training

Proposal

Funding for Research and Training would be increased by \$3.7 million, from \$69.15 million to \$72.85 million. Specifically research for Social and Rehabilitation projects would be raised from \$24.125 million to \$25.825 million for a \$1.7 million increase. This would be designed to boost funding for aging research from \$2.8 million to \$4.5 million. Additionally, funding for training in the field of aging would be increased from \$3 million to \$5 million.

Reasons

Aging Research (\$1.7 million increase)

1. Important but still unanswered questions about growing old present compelling arguments for expanding research and demonstration efforts. Even though present R & D efforts have been limited, they have proved to be a sound investment (e.g., nutrition demonstration programs).
2. The \$1.7 million increase would fund an additional 25 R & D projects, raising the present total of 42 to 67.
3. With this additional funding, new studies could be initiated to consider alternative living arrangements for the elderly; how transportation services can reduce isolation; and many others.

Aging Training (\$2 million increase)

1. It is estimated that more than 80 percent of all persons serving the elderly have never had formal preparation for their work.
2. Projections for future demand place requirements for trained personnel in 1980 "at a level two and three times above that of 1968."
3. With this additional funding, 440 more professionals could be trained. With the present budget estimate, about 352 will receive long-term training. Or, this money could be used to train 20,000 persons to participate in short-term training courses (three-week courses).
4. From an economic standpoint, additional funding for training would be a prudent investment. It can help assure that more older Americans receive the services which they need for healthy and independent living. This can also be helpful in reducing the rising costs of institutionalized care.

Department of Health, Education, and Welfare Appropriations
 National Institutes of Health
National Institute of Child Health and Human Development

Proposal

Funding for National Institute of Child Health and Human Development would be increased from \$103.232 million to \$108.052 million. The effect would be to raise appropriations for aging research and training from \$7.18 million to \$12 million, for a \$4.82 million increase.

Reasons

National Institute of Child Health and Human Development
 (4.82 million increase)

1. The proposed budget request of \$7.18 million represents nearly a 12 percent reduction when compared with last year's appropriation of \$8.762 million.
2. With this money, further research can be initiated for treatment of chronic diseases which plague aged and aging Americans.
3. Additional personnel can be trained in the field of biomedicine.

Office of Economic Opportunity Appropriations
 Community Development Programs
 Community Action Operations
Senior Opportunities and Services

Proposal

Funding for the Community Development Programs would be increased from \$830.4 million to \$832.4 million. Specifically, appropriations for Community Action Operations would be raised from \$388 million to \$390 million. This would be designed to boost funding for Senior Opportunities and Services projects from \$8 million to \$10 million.

Reasons

Senior Opportunities and Services (\$2 million increase)

1. SOS projects serve approximately 800,000 elderly persons in a wide variety of ways, including training to prepare older persons for part-time or full-time jobs; screening applicants for subsidized housing; consumer education programs to assist aged persons in buying food and budgeting their money; and employment opportunities in these programs. With a \$2 million increase, an additional 200,000 older persons could be served.
2. A recent evaluation by Kirschner Associates noted that SOS projects are an effective means for identifying and meeting the needs of the aged poor.
3. The Kirschner report also noted:
 - SOS projects have a low cost per beneficiary;
 - SOS programs have been enthusiastically accepted at the community level;
 - The projects have produced significant improvements in the aged's sense of dignity as well as their physical and emotional well-being.
4. This amendment would increase the number of projects by 61, from 246 to 307.

Department of Health, Education, and Welfare Appropriations
Social and Rehabilitation Service
Special Programs for the Aging

Proposal

Under the Church proposal, funding for Special Programs for the Aging would be increased by \$10.5 million, from \$33.7 million to \$44.2 million. Funding for the Community programs would be raised from \$5 million to \$15 million. Appropriations for the Foster Grandparent program would be increased from \$10.5 million to \$15 million.

Reasons

Community Programs (\$6 million increase)

1. Community programs are the lifeline of services for the elderly.
2. Amendment would fund an additional 460 projects, increasing the projected total of 700 to 1160.
3. An estimated 700,000 additional older Americans would be served as a result of this amendment, boosting the existing figure of 1 million to about 1.7 million.
4. An appropriation of \$15 million would fund the Community programs at about the same level as in FY 1969 (\$14.5 million).
5. Congress clearly intended major funding increases for Community programs when it passed the 1969 Amendments to the Older Americans Act. The Amendments raised the authorized funding level for Community programs from \$16 million in FY 1969 to \$20 million (FY '70) to \$25 million (FY '71) to \$30 million (FY '72). A budget request of \$9 million is only 30 percent of the authorized funding level, and is totally inadequate for the service needs of the elderly.
6. Examples of services under Community programs: transportation for the infirm and frail; home delivered meals; homemaker and home health services; telephone reassurances; and many others.
7. These services enable many older Americans to live independently, instead of being institutionalized at a much higher public cost.

ProposalReasonsFoster Grandparent Program (\$4.5 million increase)

1. There are approximately 6 million persons 60 and over who fall below the poverty line. From 1968 to 1969, their poverty numbers increased by nearly 200,000 reversing a longstanding trend.
2. The Church Amendment would provide new part-time employment opportunities for 1,800 low income persons 60 and older, raising the present total from 4,200 to 6,000.
3. An additional 3,600 neglected, retarded and otherwise disadvantaged children would receive important supportive services which are not now available. This would increase the present total of 8,400 to 12,000.
4. The Foster Grandparent program is also a sound investment. In a recent report, entitled "Cost-Benefit Analysis of the Foster Grandparent Program," it was pointed out:
 "The funding rate of the Foster Grandparent Program is thus a sound investment having a rate of return of at least 200% or 300% in terms of direct benefits and savings."
5. According to the latest data available, there are more than 8,000 eligible low-income persons who are on the waiting list at the 68 projects. However, they are unable to obtain work because there are not enough positions available.

STATEMENT OF HON. THOMAS F. EAGLETON, U.S. SENATOR FROM
MISSOURI

Mr. Chairman, Senator Church, Chairman of the Senate Special Committee on Aging, has presented to your committee proposals for increased funding for a number of programs authorized under the Older Americans Act and the Economic Opportunity Act.

As a member of that Committee, and as Chairman of the Subcommittee on Aging of the Labor and Public Welfare Committee, I appreciate the opportunity to present this statement in support of those proposals.

In summary, we are proposing increases of --

- \$14.2 million for Older Americans Act programs,
- \$4.82 million for research in aging in the National Institute of Child Health and Human Development,
- \$2 million for OEO's Senior Opportunities and Services,
- \$2.2 million for Operation Mainstream,

a total increase of \$23.22 million to provide additional services and opportunities for this generation of older Americans and the research that can make possible a better life for future generations of the aged.

Older Americans Act Programs

As you know, the Administration's budget submitted in January recommended reducing funds for several OAA programs -- for the Title III community grant program by \$3.65 million, for the Foster Grandparent Program by \$3 million, and for research and training programs by \$2.15 million.

On April 27, at the concluding session of joint hearings by the Special Committee on Aging and the Subcommittee on Aging, Secretary Richardson announced the rescission of these budget reductions. As welcome as this announcement was, the restoration of funding of these programs to fiscal 1971 levels represents progress by standing still.

The Title III community grant program, a Federal-State-local cooperative effort to develop services for the aged at the community level, is the heart and soul of the Older Americans Act.

Although the authorization levels contained in the 1969 Amendments to the Older Americans Act clearly expressed the intention of Congress that this effort be expanded, funding has dropped from \$14.5 million in fiscal 1969 to \$9 million in the last two fiscal years. To continue this level of funding this year would mean the initiation of very few new community projects.

Our proposal to increase funding for the Title III community program from \$9 million to \$15 million would permit the funding of 460 new projects, serving approximately 700,000 additional elderly people in a variety of ways, among them home-delivered meals, transportation, homemaker and home health services, and multipurpose senior centers.

The Foster Grandparent Program, which provides part-time employment opportunities for low-income persons aged 60 and over to furnish supportive services to disadvantaged and institutionalized children, is one of the most successful and popular programs funded by the federal government. It has recently been transferred from the Administration on Aging to ACTION amid promises that it would have increased priority and visibility in that agency.

However, the standstill appropriation of \$10.5 million requested by the Administration would do no more than refund the 68 existing projects. The Administration on Aging has reported that it has turned away hundreds of applications for new projects each year, and that there are now some 8,000 persons on waiting lists at the existing projects.

Our proposal to increase fiscal 1972 funding from \$10.5 million to \$15 million would provide new part-time employment opportunities for 1,800 low-income elderly persons.

The research and training activities authorized by Titles IV and V of the Older Americans Act have been transferred from the Administration on Aging to the Social and Rehabilitation Service and would, under the revised budget requests, be funded

at fiscal 1971 levels.

Although Administration witnesses before Congressional committees continually refer to the need for additional research and the development of models for the delivery of social services to the aged, the budget requests for research and development funds under the Older Americans Act have declined from \$4,155,000 in fiscal 1969, to \$3,250,000 in fiscal 1970, and \$2,800,000 in fiscal 1971 and 1972. The initial request for fiscal 1972 was only \$1,850,000.

Our proposal to increase funding for Title IV from \$2.8 million to \$4.5 million could fund an additional 25 research and development projects.

Again, a standstill budget for the training of personnel in the field of aging is difficult to justify in view of the fact that the vast majority of those working with the elderly today have had no formal training and that the demand for trained personnel is expected to increase two- or threefold in the next decade.

Our proposal to increase fiscal 1972 funds for training from \$3 million to \$5 million could train 440 additional professionals in the aging field.

National Institute of Child Health and Human Development

Biomedical and behavioral research in aging, conducted under the auspices of the National Institute of Child Health and Human Development, would suffer a severe setback if funded at the level requested by the Administration. In recent years, appropriations for this purpose have remained generally constant, with little allowance for rising costs resulting from inflation and virtually no room for growth. The fiscal 1972 budget request would greatly accelerate the backward slide in this area by imposing a cut of about 12 percent on aging research.

This misallocation of resources is not only inequitable, it is short sighted as well. Persons over 65 account for an inordinately large share of the Nation's total health care costs; by some estimates as much as two-thirds of our expenditures for health care can be attributed to treating elderly persons. A modest investment in aging research holds

the promise of producing valuable information regarding the process of aging and degenerative diseases, thus helping to extend the healthy middle years of life and reducing the amounts now spent for health care for the elderly.

The immediate effect of funding in accordance with the budget estimate of \$7.18 million would be to preclude the awarding of any new aging research grants in fiscal 1972.

(See attached letter from Dr. Gerald D. LaVeck, M.D., Director of NICHD). As the Subcommittee knows, the term "new awards" refers not only to projects just getting under way but also to projects that have been funded over a period of time in the past and have the misfortune to come up for renewal in the current year.

A case in point is the work being conducted at the Duke University Center for the Study of Aging and Human Development. At the core of the Duke project is a pair of interrelated longitudinal studies of the physical, psychological and social effects of aging. The first of these has been following the aging process in a carefully selected group of 260 elderly volunteers since 1955. The intention is to follow these individuals to termination. The other study has been following a separate group of 500 subjects since 1967. Attached is a letter from Professor George L. Maddox, Program Coordinator, describing the studies under way at Duke. Also attached is an evaluation of the Duke studies submitted by the National Institutes of Health in connection with hearings on research in aging held by the Subcommittee on Aging.

The relevant facts, abstracted from these documents, are:

1. -- The research being conducted at Duke can no longer be funded if the Administration's budget request should be adopted. The Duke project is up for renewal in fiscal 1972 and is therefore a "new award" that cannot be funded unless appropriations are increased.
2. -- NIH itself has concluded that "Termination of support of the research grant to Duke University would have a seriously crippling effect on scientific and practical progress in the field of human aging. . . .

The value of such studies increases disproportionately across a time-span."

In short, the irreplaceable information accumulated over the last sixteen years will go down the drain for failure to continue the project to its conclusion, despite NIH testimonials to its worth. And this is but one instance of work that will not be done, fundamental knowledge that will not be acquired, prior investments that will be dissipated, if Congress fails to provide adequately for the aging research program of NICHD.

It will not suffice, Mr. Chairman, to attempt to remedy years of neglect in the vital field of aging research by restoring funds to last year's level. To stand still in this area is, in fact, to go backward because of the ever rising costs that afflict scientific research just as our entire economy is hit by inflation. The scientific community has united behind the Gerontological Society's recommendation that funding for NICHD be increased by \$4.82 million. An increase of this amount would permit the funding level for aging research and training to be raised from \$7.180 million (the budget request figure) to \$12 million.

I join with Senator Church in urging that this recommendation be adopted by the Subcommittee.

Senior Opportunities and Services

OEO's Senior Opportunities and Services program serves the elderly poor in a wide variety of ways.

Our proposal that fiscal 1972 funding be increased from the fiscal 1971 level of \$8 million to \$10 million would enable the number of projects to be increased from 246 to 307 and the number of people served to be increased from 800,000 to 1 million.

Operation Mainstream

Under Operation Mainstream, authorized by the Economic Opportunity Act, and administered by the Department of Labor, pilot programs such as Green Thumb, Green Light, Senior Aides, and Senior Community Service programs provide community service employment opportunities for persons 55 and over.

The need for these opportunities is greater than ever today because of the especially hard impact of the current economic slowdown on older workers. As of June of this year, unemployment for persons 55 and over had reached nearly 500,000. 171,000 persons in this age bracket had been out of work for 15 weeks or longer. And these figures do not include those older persons who have simply given up and dropped out of the labor force.

Our proposal for increasing Operation Mainstream funding from \$38.8 million to \$41 million would make available an additional 700 community service job opportunities.

Mr. Chairman, 20 million Americans -- one out of every 10 -- are 65 or over. Of this number, at least one quarter live in poverty and desperately need the services and employment opportunities that can be provided through the above programs.

We are asking that funding for these programs and for basic research in aging be increased by a total of \$23.22 million over the amounts requested by the Administration. This is, in our terms, a modest sum. Yet the channeling of it into these service and employment programs can result in a significant difference in the lives of as many as a million older Americans. I hope the Committee will agree that this is an investment worth making.



DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE

PUBLIC HEALTH SERVICE
NATIONAL INSTITUTES OF HEALTH
BETHESDA, MARYLAND 20014

April 8, 1971

Dr. Denham Harman
Chairman, American Aging Association
Department of Biochemistry
The University of Nebraska
Omaha, Nebraska 68105

Dear Dr. Harman:

Thank you for your letter of March 31. I was most interested to read about the American Aging Association at the time of its establishment last fall, and I am happy to have the additional information which you sent to me about your new organization.

The appropriation requested for the National Institute of Child Health and Human Development in the President's budget for Fiscal Year 1972 is \$103.2 million, of which \$7.2 million are allocated for our aging program. This represents a \$1.4 million reduction compared to funds spent in Fiscal Year 1971 for this program. This will mean, for example, that no new aging research grant awards can be made in Fiscal Year 1972. The table that follows provides a more detailed analysis:

NICHD AGING RESEARCH PROGRAM

	<u>1970</u>	<u>1971</u> <u>Estimate</u> (In thousands)	<u>1972</u> <i>Budget Request</i> <u>Estimate</u>
Research Grants	\$3,226	\$3,592	\$2,251
Fellowships	251	263	251
Training Grants	<u>2,063</u>	<u>2,008</u>	<u>2,008</u>
Subtotal	\$5,540	\$5,863	\$4,510
Gerontology Research Center	2,132	2,140	2,178
Other Aging Research	<u>428</u>	<u>530</u>	<u>492</u>
Total	\$8,100	\$8,533	\$7,180

I hope this information is helpful to you. Thank you for sending me the newsletter, and please feel free to contact me again if we can be of any assistance to you.

Sincerely yours,

Gerald D. LaVeck, M.D.
Director

National Institute of Child Health
and Human Development

Duke University Medical Center

DURHAM, NORTH CAROLINA

CENTER FOR THE STUDY OF AGING
AND HUMAN DEVELOPMENTPOSTAL CODE 27706
TELEPHONE 919-684-8111

July 7, 1971

Senator Thomas F. Eagleton
New Senate Office Building
Room 4230
Washington, D.C.

Dear Senator Eagleton:

This is in response to your request for information about the current status and future prospects for research at the Duke University Center for the Study of Aging and Human Development

Over the last fifteen years the Center has developed an integrated, multidisciplinary program of research and training in the interest of serving older persons. This unique program currently involves forty-six investigators working in close proximity to each other on a common theme: the central nervous system, aging, and adaptation. Specific emphasis has been placed on the integration of physiological, psychological, and sociological components of adaptation in the middle and later years of life.

The range and complexity of the Center's research is illustrated in the appended précis of specific projects of the Aging Program. But attention should be called particularly to one of the projects which is the core of the entire program. I refer to the two longitudinal studies in which Ewald W. Busse, M.D. is principal investigator ("The Effect of Aging Upon the Nervous System: Longitudinal Studies of the Physical, Psychological, and Social Effects of Aging"). Both of these studies involve to some degree most of the investigators in the Aging Program at the Center. The older of the two studies has followed carefully the development of 260 elderly community volunteers periodically since 1955. The intention is to follow these individuals to termination. This study is invaluable in providing a rare opportunity to assess repeatedly those physical, psychological and social changes among very old individuals in the last years of life which make it possible to maintain themselves effectively outside institutions and in the community.

A second longitudinal investigation was begun in 1967 as a logical extension of the first study. The new study, using a randomly drawn sample of 500 subjects between the ages of 45 and 70, concentrates specifically on factors which predict successful adaptation to the stressful events encountered with increasing frequency after the middle years of life. These studies are unique in their breadth, depth, and continuity.

They are complemented by the other research projects described briefly in the appendix to this letter.

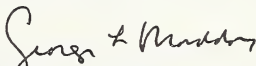
Unfortunately the continuation of this program of research, which has been so carefully developed over the past fifteen years, is currently in doubt. The Duke Center's current program project grant from the National Institute of Child Health and Human Development is scheduled to terminate November 30, 1971. A new program project grant was submitted to that Institute on January 13, 1971, and received a thorough three day review by a site visit team of sixteen scientists and staff members representing the NIH on March 11, 12, and 13. The Advisory Council of the Institute has deferred action on the proposal pending an extraordinary Council Site Visit scheduled for September.

It is our understanding, however, that even if the final action of NICHD were approval with the highest priority, the Institute would not have funds to support the Duke Center. We understand, in fact, that no new research grants or competitive renewal of grants can be funded during Fiscal 1972 according to current projections. This situation apparently makes the history and potential scientific or applied value of any particular program of research in aging irrelevant.

While we are not privy to the specific recommendation regarding support of the Duke Center made to the Institute by the distinguished site visitors following their visit on March 11, 12, and 13, we have every reason to be confident that their recommendation was substantially favorable. If this conclusion is correct, we would have expected approval of a major part of the \$1,159,157 requested for the period December 1, 1971 to November 30, 1972, and of the \$5,554,966 dollars requested for the projected five years of the project.

We appreciate your interest in research, training and service for older people and in the work of the Duke Center. We will be pleased to supply any additional information about the Center that you require.

Sincerely yours,



George L. Maddox
Professor and Program Coordinator

GM/mv
Appendix

NIH Statement Submitted to Senate Subcommittee on Aging

QUESTION: What would be the long-term effects of termination of the grant to Duke University?

ANSWER: Termination of support of the research grant to Duke University would have a seriously crippling effect on scientific and practical progress in the field of human aging.

Relative to the importance of the field, the nature and problems of human aging are neglected in all of the relevant sciences and professions. The Duke University Center for the Study of Aging and Human Development is the only university-based effort in America large enough and continuous enough to constitute the necessary "critical mass" for sustained, multidisciplinary studies in aging. It is also interdisciplinary among pathologists, neurologists, psychiatrists, psychologists, sociologists and social workers. The "interdisciplinary team" approach is often recommended but seldom practiced in American science; Duke is a rare exception. The Duke group has produced about 500 scientific and professional articles and 10 books of good quality.

The Duke Center is carrying out two multidisciplinary studies of aging humans, in which a wide spectrum of variables -- from physical health to social habits and circumstances -- are studied in the same individuals across time. Such comprehensive longitudinal studies are rare and historically have had a high casualty rate because of the difficulties in keeping a high quality team together over the long periods of time necessary. The value of such studies increases disproportionately across a time-span. Interruption of financial support to these two studies probably would break up the "team." This, in turn, probably would destroy the projects because of the difficulty in remotivating and reactivating the study panels, and because of the even greater difficulty of inducing later scientists to pick up the exact work of the earlier scientists. Destruction of these longitudinal projects at this time would result in the waste of most of the information gathered to date. Good, comprehensive data on the flow of changes within adult humans over time is practically non-existent, and is badly needed.

The Duke group is also unusually valuable in raising the visibility of the problems of human aging in science, the professions, and society. For example, Dr. Ewald Busse of this group is the incumbent President of the American Psychiatric Association, where he has reminded his colleagues of psychiatry's neglect of the problems of older Americans.

STATEMENT OF HON. WINSTON PROUTY, U.S. SENATOR FROM VERMONT

Mr. Chairman:

As ranking Minority Member of the Senate Special Committee on Aging, I welcome this opportunity to urge you and your Subcommittee to act favorably on proposed increases in appropriations to support service programs essential to immediate expansion of satisfying life experiences for today's older Americans and to strengthen research aimed at increasing quality of life both for those who are now old and those who will become aged in the future.

My recommendations for increases for specific items in the proposed FY 1972 budget total \$21.02 million. I trust and hope you will share my view that this is a small additional price to pay in our efforts to broaden horizons for more than 20 million persons now past 65 and tens of millions in the future.

These requests are made with a deep sense of appreciation for the responsiveness of you and your Subcommittee to such needs in the past, including your favorable action on recommendations made by me and others last year related to funding of the Administration on Aging and the White House Conference on Aging. The need for continuing progress is no less today than then.

Community Programs on Aging under Title III of the Older Americans Act constitute a most obvious need for increased funding. I urge that appropriations for this purpose, often described as the heart of the Older Americans Act, be increased from the proposed \$9 million to \$15 million, an upward revision of \$6 million.

Senior centers, meals on wheels, homemaker services, friendly visitor programs and similar activities involving and benefiting older persons under Title III Community Grants have broadened horizons and improved life quality for roughly one million older Americans during the past year. These grants have made possible development of programs in accordance with priorities set by older persons themselves at State and community levels. It is vital that we keep in operation those programs which have already demonstrated their value and extend their benefits to others as rapidly as practical. An increase

of \$6 million for this purpose seems a minimum if the intent of the Older Americans Act is to be satisfied by expanding such services now to an additional 700,000 persons or more.

The Foster Grandparents Program, which has proved highly successful in bringing new meaning to low-income persons over 60 while providing important supportive services to disadvantaged children, should also be expanded through increased funding. I recommend that the budget request be increased from \$10.5 million to \$15 million. This would permit increasing the number of older persons engaged in this income-producing part-time pursuit from 4,200 to 6,000 and an increase of 3,600 in the number of children it serves.

That there is a large waiting list of potential participants for Foster Grandparents service but emphasizes how valuable it has been to the aged and the communities it serves.

The Senior Opportunities and Service Program under the community action programs under the Office of Economic Opportunity is another work-service program for older Americans which deserves expanded support. I recommend an increase in appropriations for S.O.S. by \$2 million over the \$8 million proposed in the Administration budget. This would bring total funding for O.E.O. community development programs from \$830.4 million to \$832.4 million. The proposed \$2 million increase would permit the Senior Opportunities and Service Program to serve an additional 200,000 older persons above the current 800,000 at low unit cost per beneficiary, with heightened dignity for its participants and in ways that have been enthusiastically accepted at the community level.

Expanded Research in Aging in the National Institute of Child Health and Human Development is equally important to the long view of aging in America. Ultimate solution of the most critical problems of aging today and tomorrow demands greater emphasis on gerontological research in biomedical, sociological and psychological aspects of aging such as are carried out by NICHD.

The Gerontological Society has recommended funding for NICHD research in aging be increased from \$7.18 million proposed in the budget to \$12 million.

- 3 -

I concur fully with the recommendation by the Gerontological Society and urge you to act favorably upon it.

Both immediate and long term needs of older Americans can be met only if we devote a reasonable portion of our National product to increasing our knowledge, through research, on the aging process, disease and related psychological and sociological elements. \$12 million for such reasearch in the National Institute of Child Health and Human Development seems to be a minimum budgetary allocation.

Research and Training Programs of the Social and Rehabilitation Service, related as they are to the work of the Administration on Aging, likewise deserve funding at a higher level than currently proposed. I concur with recommendations you have received that funding for SRS research and training be increased by \$3.7 million from \$69.15 million to \$72.85 million. With such an increase new demonstration and research projects could be undertaken.

SUBCOMMITTEE RECESS

Senator MAGNUSON. We will recess until Monday at 10 o'clock, when we will resume hearings with departmental witnesses.

(Whereupon, at 5 p.m., Friday, July 16, the subcommittee was recessed, to reconvene at 10 a.m., Monday, July 19.)

PART 1—Pages	1-826
PART 2—Pages	827-1484
PART 3—Pages	1485-2276
PART 4—Pages	2277-3132
PART 5—Pages	3133-3615
PART 6—Pages	3617-4355

CHRONOLOGICAL LIST

Wednesday, June 9, 1971 :	Page
Department of Labor, Secretary-----	1
Bureau of Labor Statistics-----	67
Manpower Administration-----	117
Friday, June 11, 1971 :	
Department of Labor :	
Workplace Standards Administration-----	233
Occupational Safety and Health Administration-----	305
Federal Workmen's Compensation Benefits-----	321
Federal Unemployment Benefits and Allowances-----	343
Limitation on Grants to States for Unemployment Insurance and Employment Services-----	366
Bureau of International Labor Affairs-----	387
Special Foreign Currency Program-----	401
Monday, June 14, 1971 :	
Department of Labor :	
Labor-Management Services Administration, salaries and ex- penses-----	423
Office of the Solicitor, salaries and expenses-----	481
President's Committee on Employment of the Handicapped-----	519
Office of the Secretary, salaries and expenses-----	532
Tuesday, June 15, 1971 :	
Commission on Railroad Retirement-----	573
National Labor Relations Board-----	615
National Mediation Board and National Railroad Adjustment Board-----	659
Railroad Retirement Board-----	690
Thursday, June 17, 1971 :	
Federal Mediation and Conciliation Service-----	715
U.S. Soldiers' Home-----	749
Occupational Safety and Health Review Commission-----	762
Cabinet Committee on Opportunities for Spanish-Speaking People-----	774
Office of Economic Opportunity-----	795
Wednesday, June 23, 1971 :	
Department of Health, Education, and Welfare :	
Social and Rehabilitation Service :	
Administrator, testimony of-----	1086
Thursday, June 24, 1971 :	
Department of Health, Education, and Welfare :	
Social and Rehabilitation Service :	
Administrator, testimony of-----	1135
Tuesday, June 29, 1971 :	
Department of Health, Education, and Welfare :	
Social Security Administration :	
Commissioner, testimony of-----	1260

II

Tuesday, July 6, 1971 :	
Department of Health, Education, and Welfare :	Page
Nondepartmental Witnesses-----	1485
Wednesday, July 7, 1971 :	
Department of Health, Education, and Welfare :	
Nondepartmental Witnesses-----	1621
Thursday, July 8, 1971 :	
Department of Health, Education, and Welfare :	
Nondepartmental Witnesses-----	1743
Friday, July 9, 1971 :	
Department of Health, Education, and Welfare :	
Nondepartmental Witnesses-----	1875
Monday, July 12, 1971 :	
Department of Health, Education, and Welfare :	
Nondepartmental Witnesses-----	2021
Tuesday, July 13, 1971 :	
Department of Health, Education, and Welfare :	
Nondepartmental Witnesses-----	2101
Wednesday, July 14, 1971 :	
Department of Health, Education, and Welfare :	
Nondepartmental Witnesses-----	2277
Thursday, July 15, 1971 :	
Department of Health, Education, and Welfare :	
Nondepartmental Witnesses-----	2435
Friday, July 16, 1971 :	
Department of Health, Education, and Welfare :	
Nondepartmental Witnesses-----	2747
Monday, July 19, 1971 :	
Department of Health, Education, and Welfare :	
Health and Scientific Affairs :	
Assistant Secretary, testimony of-----	3133
Health Services and Mental Health Administration-----	3152
Tuesday, July 20, 1971 :	
Department of Health, Education, and Welfare :	
National Institutes of Health-----	3617
Wednesday, July 21, 1971 :	
Department of Health, Education, and Welfare :	
National Institutes of Health-----	3893
Related agencies :	
National Commission on Libraries and Information Science -----	1471
National Commission on Marihuana and Drug Abuse----	1453
Thursday, July 22, 1971 :	
Department of Health, Education, and Welfare :	
Office of Child Development-----	1317, 1346
Office for Civil Rights-----	1360
Departmental Management-----	1444

LIST OF WITNESSES

	Page
Adams, Dr. Forrest.....	1744
Aines, Andrew A.....	1471
Alexander, Hon. Bill, U.S. Representative from Arkansas.....	2462
Anderson, Charles W.....	1508
Anderson, Hon. Clinton P., U.S. Senator from New Mexico.....	4131
Anderson, Forrest H.....	2089
Anderson, Dr. Robert J.....	1891
Appar, Dr. Virginia, M.P.H.....	2671
Appel, Charles F.....	1951
Ashby, Dr. B. R.....	1987
Atwell, Willis W.....	1137, 1172
Baker, Dr. Carl G.....	3636, 3701-3713
Ball, Robert M.....	1260-1316
Bassett, Julia.....	2619
Bates, James E., D.P.M.....	2879
Bax, James A.....	1103
Bayh, Hon. Birch, U.S. Senator from Indiana.....	1151
Bechill, William.....	2076
Benedict, William F.....	1778
Bentsen, Hon. Lloyd M., Jr., U.S. Senator from Texas.....	2215
Bergman, Dr. Abraham B.....	2689
Berman, Dr. Sydney.....	2021
Bernstein, Dr. Arthur.....	2918
Besch, Dr.....	2337
Betts, Dr. Henry B.....	2666
Bierman, Dr. Edwin L.....	1851
Birren, James E.....	1701
Bliven, Dr. Charles.....	2780
Bowery, Dr. Thomas G.....	4124-4132
Boyle, Thomas E.....	2264
Bradley, Elizabeth.....	3589
Brady, Rodney H.....	1447
Brickfield, Cyril.....	1684
Brobeck, Dr. John R.....	1820
Brooke, Hon. Edward W., U.S. Senator from Massachusetts.....	3106
Bucher, William B.....	1876
Buchwald, Dr. Henry.....	2206
Bucy, Dr. Paul C.....	2280
Burkhardt, Dr. Frederick.....	1471
Burns, Dr. John J.....	1831
Caniff, Charles.....	2288, 2313
Cardwell, James B.....	1444
Carlucci, Frank.....	795
Castleton, Dr. Kenneth B.....	2365
Chapman, Dr. Carleton B.....	2467
Chase, Irving.....	1566
Church, Hon. Frank, U.S. Senator from Idaho.....	3075, 3110
Clayman, Jacob.....	2257
Clifton, Dr. James A.....	3001
Collins, Rev. T. Byron.....	1875, 2417
Cook, Dr. Charles D.....	1733
Cooke, Eileen D.....	1481
Cooper, Dr. Theodore.....	3745-3753

	Page
Costa, John L.....	1110
Counts, J. Curtis.....	738
Cranston, Hon. Alan, U.S. Senator from California.....	2118
Crow, Mervin.....	1596
Cummings, Dr. Martin M.....	4175-4178
Curnen, Dr. Edward C., Jr.....	1977
Davey, David M.....	2729
Davidson, Rita C.....	2087
Davis, Dr. Dorland J.....	3975-3993
Doctor, Dr. Jack M.....	2251
Drye, Robert.....	1526
Dunkell, Dr. Samuel V.....	2715
Dunphy, Robert G.....	2214
DuVal, Dr. Merlin K.....	3133
Dykens, Dr. James W.....	3589
Eagleton, Hon. Thomas, F., U.S. Senator from Missouri.....	3119
Edwards, Nelson.....	1497
Egan, William A., Governor of the State of Alaska.....	2168, 2198
Ehrlich, Dr. S. Paul, Jr.....	4231-4234
Eiserdorfer, Dr. Carl.....	1854
Ekeberg, John M.....	335
Ellender, Hon. Allen J., U.S. Senator from Louisiana.....	1144, 2101, 3562
Endicott, Dr. Kenneth M.....	4318-4346, 4352-4355
Evans, Daniel J., Governor of the State of Washington.....	1115, 1148
Fasser, Paul J., Jr.....	353, 382, 1118
Filerman, Dr. Gary.....	2410
Fletcher, Arthur A.....	268
Fortner, Rev. William R.....	2573
Francis, Yvette.....	1739
Frazier, Dr. Robert G.....	1711
Frommeyer, Dr. Walter B.....	1900
Fudenberg, Dr. H. H.....	2697
Futterman, Jack S.....	1277, 1289
Garrett, James F.....	1169
Gemignani, Robert J.....	1150
Giannini, Dr. Margaret J.....	1622
Gibson, Dr. Robert.....	1751
Gilligan, John J.....	2093
Gilligan, John J., Governor of the State of Ohio.....	2093
Goldfeld, Robert.....	1954
Gordon, Jerome B.....	1503
Gorman, Mike.....	1579
Gravel, Hon. Mike, U.S. Senator from Alaska.....	2196
Griffin, Dr. Herschel E.....	1957
Guenther, George C.....	305
Guinee, Dr. Vincent F.....	1924
Guthrie, Mrs. Marjorie.....	1886
Habermeyer, Howard W.....	706
Harding, Charles B.....	1729
Hardy, Dr. Janet B.....	2350
Harmon, John C., Jr.....	2720
Hartke, Hon. Vance, U.S. Senator from Indiana.....	1127, 2452
Heartwell, William L., Jr.....	1881
Hecht, George J.....	1862
Hellegers, Dr. André.....	1669
Helsel, Elsie D., Ph. D.....	2591
Henderson, Dr. James.....	2330
Heyworth, James O.....	2659
Hildebrand, George H.....	407
Hodgson, Hon. James D.....	1
Hopkins, Stephen A.....	2091
Hughes, Hon. Harold E., U.S. Senator from Iowa.....	3569
Humphrey, Hon. Hubert H., U.S. Senator from Minnesota.....	2205,
	2214, 2769, 2779, 3080

	Page
Ingraham, Dr. Hollis S.....	1980
Irving, Dr. Lawrence.....	2190
Ives, George S.....	681
Jaffee, Frederick.....	1664
James, Dr. George.....	2601
Javits, Hon. Jacob K., U.S. Senator from New York.....	3061
Jentsen, Allen.....	2075
Johnson, Dr. Kenneth O.....	2708
Jones, Conrad M.....	30, 31, 63-66, 105
Jordan, Dr. Robert.....	1627, 1635
Kailin, Dr. Eloise.....	1860
Kennedy, Hon. Edward M., U.S. Senator from Massachusetts.....	2104
Kenney, Dr. John.....	2436
Kerby, Austin E.....	1486
Kief, Charles E.....	681
Kimmey, Dr. James R.....	1748
King, Ruben K.....	2078
Kingman, George M.....	4092, 4094
Kirkpatrick, Loy.....	2439
Kottke, Dr. Frederic J.....	2749
Kreshover, Dr. Seymour J.....	3784, 3788
Krueger, Herbert A.....	2097
Kupfer, Dr. Carl.....	4057-4065
La Veck, Dr. Gerald D.....	3125, 4025-4033
Leavitt, Dr. Milo C.....	4146, 4150
Lee, Randolph W.....	1103, 1121, 1139
Lehmann, Dr. Justus F.....	2776
Leonard, Dr. Arnold S.....	1636
Levin, Norman.....	2901
Longmire, Richard M.....	1164
Lourie, Norman V.....	2029
Lovell, Malcolm R., Jr.....	33, 38, 48, 49, 54, 56, 58, 188
Lowman, Dr. Edward W.....	2682
Luota, Dr.....	2336
McGonagle, John J.....	2841
McLean, Patricia.....	2854
McLeod, Elwood.....	2088
MacNichol, Dr. Edward F., Jr.....	3633, 3921-3943
Maddox, George L.....	3126
Magnuson, Hon. Warren G., U.S. Senator from Washington.....	3580
Mandel, Marvin, Governor of the State of Maryland.....	1124
Marston, Dr. Robert Q.....	3617
Mathias, Hon. Charles McC., U.S. Senator from Maryland.....	2458
Matson, Wayne R.....	2657
Mattson, Robert H.....	1129
Maumenee, Dr. A. Edward.....	2630
Melby, Dr. Edward C., Jr.....	2391
Merritt, Dr. Houston.....	2281, 2310
Miller, Charles II.....	1101, 1105, 1110, 1113, 1117, 1120, 1139, 1141, 1156, 1170, 1290, 3627, 3630, 3641, 3645, 3647, 3746, 3752, 3939, 3990, 4031, 4059, 4125, 4340
Miller, Edward B.....	642
Miller, Gregory A., Ph. D.....	2608
Mondale, Hon. Walter F., U.S. Senator from Minnesota.....	2747, 3071
Moody, O. William.....	2427
Moore, Geoffrey H.....	33, 43, 47, 48, 53, 98
Moran, Robert D.....	766
Moreland, Alvin F., D.V.M.....	2344
Morris, Jonas.....	1539
Moser, Dr. Hugo W.....	1626, 1633
Moss, Hon. Frank, U.S. Senator from Utah.....	3564, 3571
Murphy, Marion, R.N., Ph. D.....	2529
Murray, Dr. Roderick.....	3658, 3661
Murtaugh, Joseph S.....	2511

	Page
Nadel, Dr. Jay A.....	2674
Nash, Peter G.....	513
Neal, Oily.....	2913
Newman, Edward.....	1120, 1123, 1130
Newman, Howard.....	1091, 1173, 1180
Nunn, Louie B., Governor of the State of Kentucky.....	2085
Ogden, C. Robert.....	2917, 2949
O'Meara, Gen. Andrew P.....	2388
Orr, Dr. Jack E.....	2780
Pastore, Hon. John O., U.S. Senator from Rhode Island.....	1166
Percy, Hon. Charles H., U.S. Senator from Illinois.....	2279
Perry, Thomas J.....	2408
Peterson, Kenneth.....	1989
Peterson, Russell W.....	2082
Piggott, Bess M.....	2546
Pollard, Dr. H. Marvin.....	1889
Popick, Bernard.....	1282
Pottinger, Stanley J.....	1368
Prouty, Hon. Winston, U.S. Senator from Vermont.....	3129
Putnam, Dr. Frank K.....	1814
Rachlin, Sylvia N.....	2404
Rall, Dr. David P.....	4028, 4089-4096
Rall, Dr. Edward.....	3834-3849
Ranney, Jack L.....	2710
Reagan, Ronald, Governor of the State of California.....	2080
Reed, Dr. George.....	2289, 2301
Reed, Dr. Joseph B.....	2943
Reidier, Jack.....	1496
Rockefeller, Nelson A., Governor of the State of New York.....	2092
Rockstein, Morris, Ph. D.....	2624
Rodriguez, Antonio F.....	781
Russell, Harold.....	519
Ryan, Hon. William F., U.S. Representative from New York.....	2159
Sackler, Arthur M.....	2592
Salley, Dr. John.....	3047
Salmon, Peter J.....	2868
Saslow, Dr. George.....	2717
Schaefer, Marguerite J.....	2553
Schiefelbusch, Dr. Richard L.....	2376
Sch nibbe, Harry C.....	1600
Schreiner, Dr. George E.....	2318
Schwabacher, Morton L.....	2643
Schwarting, Dr. Arthur E.....	2793
Schwarz, Dr. M. Roy.....	2191
Schweizer, George J., Jr.....	2572
Scott, Jessie.....	4348-4352
Scott, Mrs. Joe McCalmont.....	2647
Seegmiller, Dr. J. Edwin.....	3026
Shannon, Dr. Karr.....	3563
Sherman, Dr. John F.....	4213, 4340
Siegel, Dr. Benjamin.....	2270
Sonnenreich, Michael R.....	1453
Spencer, Dr. William A.....	2215
Spong, Hon. William B., Jr., U.S. Senator from Virginia.....	2096
Stetin, Sol.....	2266
Stetson, Dr. Chandler A.....	1804
Stetten, Dr. DeWitt, Jr.....	3630, 3880-3891
Stevens, Hon. Ted, U.S. Senator from Alaska.....	2167
Stillman, Dr. J. Sydney.....	2976
Stubblefield, Dr. Robert L.....	1768
Stunkard, Dr. Albert.....	1782, 1798

VII

	Page
Taber, Martha.....	2846
Taft, Hon. Robert, Jr., U.S. Senator from Ohio.....	1743
Terry, Dr. Luther L.....	2676
Thomas, Dr. Andrew.....	2438
Thomas, Dr. Lewis.....	1846
Thorpe, Dr.....	2333
Tierney, Thomas M.....	1309
Tunney, Hon. John V., U.S. Senator from California.....	2142
Twiname, John D.....	1086-1183
Tyssowski, Mrs. Mildred L.....	1290, 1315
Usery, W. J., Jr.....	453
Vowell, Raymond W.....	2095
Washburn, Dr. Donald A.....	3019
Watson, Albert II.....	752
Weisbrod, Harry.....	1507
Wennberg, John E.....	3149
Wertz, Terrell M.....	1485
White, Francis.....	1517
Whiting, Dr. Frank J.....	1789
Whitten, E. B.....	2733
Wiemer, Mrs. Ruth.....	2713
Williams, Dr. Harold H.....	1808
Williams, Hon. Harrison A., Jr., U.S. Senator from New Jersey.....	2130
Williamson, Kenneth.....	1972
Wilson, Dr. Vernon E.....	3541
Wisland, Milton V., M.D.....	2453
Wolfe, Mrs. Corrinne H.....	1110
Yntema, Theodore O.....	573
Zarb, Frank G.....	560
Zeisel, John.....	1617
Zigler, Dr. Edward.....	1346

SUBJECT INDEX

CABINET COMMITTEE ON OPPORTUNITIES FOR SPANISH-SPEAKING PEOPLE

	Page
Automobile driving licenses, procurement of by Spanish-speaking people--	784
Budget:	
Authority for-----	782
Justification of-----	774
Staff of-----	774
Testimony of Director-----	781
Cuban refugee program-----	790
Employment program-----	785
English language:	
Barrier of inability in-----	793
Encouragement to learn-----	787
Income, average family-----	789
Migrant farmworkers-----	783
Small business loans-----	785
Spanish and Latin population in United States-----	788

COMMISSION ON RAILROAD RETIREMENT

Authority for-----	591, 608, 609, 613
Budget, justification-----	575, 609
Chairman, testimony of-----	608
Members-----	594
Program for-----	595
Railroad retirement system, complexity of-----	608

DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE

Aged:	
Nursing homes-----	1173
Nutrition problems-----	977, 1143, 1027, 1172
Training of workers-----	1048, 1076, 1143
Aging, special programs:	
Budget amendment-----	1069
Foster grandparents-----	971, 984, 990, 1136, 1140, 1148
Justification of budget request-----	970, 3184
Program purpose and accomplishments-----	987, 3189
State tables-----	1136
Testimony concerning-----	1136
Training, cuts in funding-----	1169, 3196
White House Conference on Aging-----	971, 978, 989, 1136, 1137
Aid to families with dependent children-----	846
	855, 862, 870, 878, 880 905, 911, 938, 1021, 1089, 1104
Alcoholism:	
Funding to combat-----	3142, 3156, 3226, 3249, 3257, 3565-3572
Nature and extent of problem-----	3226, 3232-3233, 3249
Allergic diseases (<i>See also</i> National Institute of Allergy and Infectious Diseases)-----	3975
Animal research resources-----	4111-4114, 4128-4131
Arteriosclerosis (<i>See also</i> National Heart and Lung Institute)-----	3726
Arthritis and metabolic diseases. (<i>See</i> National Institute of Arthritis and Metabolic Diseases.)	
Ash Council recommendations-----	1107

Biologics standards:	Page
Justification of budget estimates	3649
Program purpose and accomplishments	3657
Testimony concerning	3658
Black plague	3419
Cancer (<i>see also</i> National Institute of Cancer, <i>infra</i>) :	
Breast	3685, 3690, 3692-3693, 3702
Conquest of	3137, 3628, 3634, 3707-3709
Leukemia	3675, 3702
Nature and extent of problem	3673, 3681, 3683-3694
Research centers	3705
Research performed by other than NIH	3709
Smoking and lung	3688, 3690, 3692-3693
Cardiac diseases (<i>see also</i> National Heart and Lung Institute)	3727
Child day care	901, 903, 907, 912, 916
Child development. (<i>See</i> Office of Child Development, <i>infra</i> .)	
Child health and human development. (<i>See</i> National Institute of Child Health and Human Development, <i>infra</i> .)	
Child welfare:	
Research	1026
Services:	
Justification of budget request	877
Program purpose and accomplishments	885
Testimony on	1109
Training	1110
Children and youth. (<i>See</i> White House Conference on Children and Youth, <i>infra</i> .)	
Cholera	3418
Civil rights. (<i>See</i> Office for Civil Rights, <i>infra</i> .)	
Clinical Research Centers:	
Fort Worth, Tex.	3252, 3265
Lexington, Ky.	3252, 3265
Coal Workers:	
Pneumoconiosis	3438
Special Benefits:	
Administration of program	1209
Benefit claims received	1207, 1212
Black lung disease, diagnosis by X-ray	1284
Justification of budget request	1199
Program purpose and accomplishments	1212
Testimony concerning	1266, 1268, 1279
Community Action Groups, relation to HEW	1089
Community mental health centers	1130, 3244
Comprehensive health planning and services:	
Justification of budget estimates	3158, 3306
New positions requested	3173, 3338
Program purposes and accomplishments	3169, 3330
State tables	3171, 3336
Testimony concerning	3550, 3592
Training in	3319
Construction Amendments, 1970, Developmental Disabilities Services and Facilities:	
Implementation of	952, 959, 968, 1126
Crippled children's services	3353, 3548
Delinquency prevention. (<i>See</i> Youth Development and Delinquency Administration, <i>infra</i> .)	
Dental research. (<i>See</i> National Institute of Dental Research, <i>infra</i> .)	
Departmental Management:	
General provisions	1441
Justification of budget estimate	1388, 3201
Testimony concerning	1446
Diabetes	3846, 4064
Digestive diseases	3836

	Page
Disease control :	
Justification of budget estimates.....	3175, 3401
New positions requested.....	3182, 3454
Program purposes and accomplishments.....	3180, 3447
State tables.....	3453
Testimony concerning.....	3545
Drug abuse: (<i>See also</i> National Commission on Marihuana and Drug Abuse, <i>infra</i>) :	
Funding to combat.....	3142, 3146, 3225, 3247, 3573-3576
National Clearinghouse for Information.....	3256
Nature and extent of problem.....	3225, 3230, 3234, 3247
Rehabilitation of victims.....	940, 947, 1109, 1170, 3252, 3265
Encephalitis	3413
Environmental health sciences. (<i>See</i> National Institute of Environmental Health Sciences, <i>infra</i> .)	
Epidemic control.....	3422
Epilepsy	3904, 3912
Eye program. (<i>See</i> National Eye Institute.)	
Family Health Centers.....	3165, 3550
Family planning :	
Maternal and child health budget.....	1101, 1107
Programs for.....	1105, 3141, 3371, 3549, 3639, 4013, 4025, 4031
Social and rehabilitation budget.....	1101
Fort Detrick, Md.....	3713
Gastroenteritis	3416
Genetics research.....	3621, 3882
Glaucoma (<i>See also</i> National Eye Institute).....	4043, 4057-4059
Grants, General Research Support :	
Justification of budget estimates.....	4186
Program purpose and accomplishments.....	4192
Head Start :	
Justification of budget estimates.....	1332
Program costs.....	1353
Program purpose and accomplishments.....	1341
Teacher salary increase.....	1349
Health and scientific affairs.....	3133
Health centers. (<i>See</i> Family Health Centers, <i>supra</i> ; Community Mental Health Centers, <i>supra</i> .)	
Health education :	
Area centers.....	3139
Loans—Justification of budget estimates.....	4310
Health Manpower :	
Justification of budget estimates.....	4235
New positions.....	4308
Program purpose and accomplishments.....	4299
Shortage	3299
Testimony concerning.....	4318
Health maintenance organizations :	
Medicaid	1096, 1181
Regional medical programs.....	3148
Stress on prevention.....	3140, 3293
Health programs :	
Coordination of.....	3557
Funding, balance in.....	3143
Health and Scientific Affairs, Assistant Secretary, statement of.....	3135
Health care delivery.....	3135, 3139, 3292
Rationale for 1972 budget requests.....	3135
Health sciences :	
Advanced study in. (<i>See</i> John E. Fogarty International Center for Advanced Study in the Health Sciences, <i>infra</i> .)	
Environmental. (<i>See</i> National Institute of Environmental Health Sciences, <i>infra</i> .)	
Health Service Corps. (<i>See</i> National Health Service Corps, <i>infra</i> .)	

XII

Health Services and Mental Health Administration :

Administrator :	Page
Justification of budget estimates-----	3533
Program purpose and accomplishments-----	3539
Buildings and facilities :	
Justification of budget estimates-----	3527
Program purpose and accomplishments-----	3531
Justifications of budget estimates-----	3152-3540
Testimony concerning-----	3541
Health Services Research and Development :	
Justification of budget estimates-----	3283
Manpower substitution-----	3299
New positions requested-----	3305
Program purposes and accomplishments-----	3303
Testimony concerning-----	3553
Training in-----	3301
Health Statistics, National :	
Justification of budget estimates-----	3502
New positions-----	3518
Program purpose and accomplishments-----	3513
Testimony concerning-----	3554
Heart disease. (<i>See also</i> National Heart and Lung Institute, <i>infra</i> :)	
Rehabilitation of victims-----	942, 1017
Hepatitis-----	3417, 3658, 3660, 3955, 3986
HEW Reorganization, President's proposal-----	1107
Hodgkin's disease-----	3685, 3690, 3701
Immunization programs—Increase in funding-----	3142, 3163, 3545
Income maintenance-----	1029, 1044, 1164
Infant mortality-----	4005
Infectious diseases. (<i>See</i> National Institute of Allergy and Infectious Diseases, <i>infra</i> .)	
Information science. (<i>See</i> National Commission on Libraries and Information Sciences, <i>infra</i> .)	
Injury control-----	3445
John E. Fogarty International Center for Advanced Study in the Health Sciences :	
Justification of budget estimates-----	4133
Program purpose and accomplishments-----	4143
Testimony concerning-----	4146
Kidney dialysis-----	3842
Kidney disease control-----	3396
Lead paint poisoning :	
Attack on-----	3142, 3179, 3181, 3585
Extent of-----	3142, 3180
Leukemia-----	3675, 3702
Libraries. (<i>See</i> National Commission on Libraries and Information Science, <i>infra</i> .)	
Lung research. (<i>See also</i> National Heart and Lung Institute, <i>infra</i> .)-----	3750
Marihuana. (<i>See</i> National Commission on Marihuana and Drug Abuse, <i>infra</i> .)	
Maternal and Child Health :	
Justification of budget estimates-----	3339
New positions-----	3379
Program purpose and accomplishments-----	3363
State tables-----	3367
Testimony concerning-----	3548
Medicaid :	
Denials of retroactive payments-----	1180
Justification of budget request-----	861
Program purpose and accomplishments-----	882
Spending-----	1091
Testimony concerning-----	1091
Medical care costs-----	3295

XIII

Medical facilities construction :	Page
Budget estimates, justifications.....	3455
New positions.....	3480
Program purpose and accomplishments.....	3467
State tables.....	3470
Testimony concerning.....	3555, 3672
Medical sciences, general. (<i>See</i> National Institute of General Medical Sciences, <i>infra</i> .)	
Medicare :	
Budget and nature of program.....	1263, 1275, 1300, 1309
Spending	3136
Standards	3327
Mental Health :	
Budget estimates, justification.....	3152, 3208
Manpower development.....	3236, 3261
Mission	3223
New positions requested.....	3157, 3266
Program purpose and accomplishments.....	3156, 3259
Testing concerning.....	3544, 3563, 3564
Mental illness :	
Nature and extent of problem.....	3231
Rehabilitation of victims.....	940, 954, 961, 1017, 1052, 1126
Migrant health care.....	3325, 3551
Model Cities program.....	946, 3597
National Center for Health Services Research and Development. (<i>See</i> Health Services Research and Development, <i>supra</i> .)	
National Center for Health Statistics. (<i>See</i> Health Statistics, National, <i>supra</i> .)	
National Eye Institute :	
Justification of budget estimates.....	4035
New positions.....	4056
Program purpose and accomplishments.....	4052
Testimony concerning.....	4052
National Heart and Lung Institute :	
Fellowships and training grants.....	3732
Justification of budget estimates.....	3715
New positions.....	3744, 3751
Program purpose and accomplishments.....	3739
Research grants.....	3731
National Health Service Corps :	
Funding of.....	3167
Need for.....	3167
National Institute of Allergy and Infectious Diseases :	
Justification of budget estimates.....	3945
Program purpose and accomplishments.....	3970
Testimony concerned.....	3975
National Institute of Arthritis and Metabolic Diseases :	
Justification of budget estimates.....	3789
Program purpose and accomplishments.....	3828
Testimony concerning.....	3834
National Institute of Cancer :	
Fellowships	3678
Justification of budget estimate.....	3663
New positions.....	3700, 3704
Program purpose and accomplishments.....	3696
Research grants.....	3676
Testimony concerning.....	3701
National Institute of Child Health and Human Development :	
Justification of budget estimates.....	3995
New positions.....	4024
Program purpose and accomplishments.....	4019
Testimony concerning.....	4025

National Institute of Dental Research :	Page
Dentists, shortage of.....	3787
Fellowships and training grants.....	3771
Justification of budget estimate.....	3755
New positions.....	3783
Oral cancer.....	3768, 3775
Periodontal disease.....	3765, 3774, 3784
Program purpose and accomplishments.....	3779
Research grants.....	3770
Testimony concerning.....	3784
Tooth decay.....	3784
National Institute of Environmental Health Sciences :	
Justification of budget estimates.....	4067
New positions.....	4088
Program purpose and accomplishments.....	4085
Testimony concerning.....	4089
National Institute of General Medical Sciences :	
Justification of budget estimates.....	3851
New positions.....	3879
Program purpose and accomplishments.....	3876
Testimony concerning.....	3880
National Institute of Mental Health. (<i>See</i> Mental Health, <i>supra</i> .)	
National Institute of Neurological Diseases and Stroke :	
Justification of budget estimates.....	3893
Program purpose and accomplishments.....	3917
Testimony concerning.....	3921
National Institutes of Health :	
Budget increases.....	3138
Budget reductions.....	3150
Buildings and facilities, justification of budget estimates.....	4195
Grants, approved but unfunded.....	3643
Management fund :	
Justification of budget.....	4200
New positions.....	4212
Program purpose and accomplishments.....	4209
Office of the Director :	
Justification of budget estimates.....	4179
New positions.....	4185
Program purpose and accomplishments.....	4185
Testimony concerning.....	4213
Perinatal study.....	3632, 3926-3936
Testimony of Director.....	3617, 3626
National Library of Medicine :	
Justification of budget estimate.....	4151
New positions.....	4174
Program purpose and accomplishments.....	4168
Testimony concerning.....	4175
Neurological diseases and stroke. (<i>See</i> National Institute of Neurological Diseases and Stroke, <i>infra</i> .)	
Nutrition.....	3430, 3546, 4015, 4032
Occupational health.....	3180, 3434, 3439, 3547
Office for Civil Rights :	
Justification of budget estimates.....	1360
New positions requested.....	1367, 1369
Program purpose and accomplishment.....	1367
Testimony on.....	1371
Office of Child Development :	
Foster care program.....	1352
Home Start program.....	1350
Justification of budget estimates.....	1317
New positions requested.....	1345, 1359
Program purposes and accomplishments.....	1340
State tables.....	1343
Statement of Director.....	1347
Overseas activities. (<i>See</i> Special Foreign Currency Program, <i>infra</i> .)	
Parkinsonism.....	3905

Patient care and special health services :	Page
Justification of budget estimates.....	3481
Program purpose and accomplishments.....	3498
Testimony concerning.....	3556
Pay costs for fiscal year 1971, civilian and military.....	3205
Poisoning. (<i>See</i> Lead paint poisoning, <i>supra.</i>)	
Pollution :	
Air	4093
Noise	4094
Pesticide related.....	4096
Public assistance, grants to States :	
Child welfare.....	877, 885
Control of costs.....	1087
Justification of budget requests.....	827
Maintenance payments.....	845, 880, 1089
Medicaid payments.....	861, 882
Program purpose and accomplishment statements.....	880
Rehabilitation of handicapped.....	945
Social services.....	870, 883
State estimates.....	1088
State tables.....	837, 886
Public Health Service Hospitals :	
Closings?	3146, 3490
Future role of.....	3141, 3556
Rabies	3420
Radiological health.....	3440, 3547
Regional medical programs :	
Cancer research in.....	3710
Funding reduction.....	3144, 3149
Justification of budget estimates.....	3380
Program purpose and accomplishments.....	3397
Program for 1971 and 1972.....	3390
Reevaluation of.....	3140, 3145
Relation to HMO's.....	3148
Testimony concerning.....	3551, 3595, 3600
Rehabilitation :	
Drug abuse victims.....	940, 947, 1109, 1170, 3252, 3265
Rehabilitation Institute of Chicago.....	1171
Services and facilities :	
Basic State grants.....	956, 962, 1124
Justification of budget request.....	922
Program purpose and accomplishments.....	956
State tables.....	962
Testimony on.....	1121
Repatriated U.S. Nationals.....	835, 860, 881
Research resources :	
Justification of budget estimates.....	4097
Program purpose and accomplishments.....	4118
Testimony concerning.....	4124
Respiratory diseases.....	3415, 3728, 3751, 3981
Retirement pay, medical benefits, commissioned officers :	
Justification of budget estimates.....	3519
Program purpose and accomplishments.....	3525
Rodent control, funding.....	3164, 3322, 3551, 3597
Rubella inoculations.....	3322, 3424, 3578
Saint Elizabeths Hospital :	
Justification of budget estimates.....	3267
New positions requested.....	3275, 3281
Patient population.....	3272, 3275
Salmonellosis	3421
Scientific activities overseas. (<i>See</i> Special Foreign Currency Program, <i>infra.</i>)	
Sickle Cell anemia.....	3729, 3752
Smallpox	3416
Smoking and health.....	3394, 3552
Social and rehabilitation activities overseas. (<i>See</i> Special Foreign Currency Program, <i>infra.</i>)	

Social and Rehabilitation Service:	Page
Administration, statement of-----	1086
Budget requests justification-----	827
Budget requests, summary-----	1086, 1087
Personnel supported-----	1114, 1182
Research and training:	
Budget amendment-----	1076
Justification of budget request-----	1008, 1391
Program purpose and accomplishments-----	1043
Testimony concerning-----	1163
Training-----	1035
Salaries and expenses:	
Budget amendment-----	1082
Justification of budget request-----	1057, 1397
New positions requested-----	1060, 1063, 1065-1068, 1169, 1180
Testimony concerning-----	1180
Social services:	
Budget request-----	1100
Limitation on payments, section 208-----	836, 1111, 1115
Personnel in-----	1102
Reform legislation-----	1088
Social Security activities overseas. (<i>See</i> Special Foreign Currency Program, <i>infra</i> .)	
Social Security Administration:	
Benefits paid overseas-----	1302
Commissioner, statement of-----	1260
Construction, limitation on:	
Justification of budget request-----	1251
Program purpose and accomplishments-----	1259
Testimony concerning-----	1270, 1313
Effect of H.R. 1-----	1261
Increased benefits-----	1273
Justification of budget requests-----	1185
Salaries and expenses, limitation on:	
Expenses, breakdown of-----	1238, 1240, 1300
Justification of budget request-----	1218, 1232
Program purpose and accomplishments-----	1250
Testimony concerning-----	1269, 1300
Summary of budget requests-----	1260, 1271
Trust funds, payments to:	
Hospital insurance for the uninsured-----	1192, 1292
Justification of budget requests-----	1185
Military service credits-----	1194, 1292
Program purpose and accomplishments-----	1197
Retirement benefits for certain uninsured persons-----	1196, 1293
Supplementary medical insurance-----	1190, 1291
Testimony concerning-----	1267
Trust fund balance-----	1315
Special Foreign Currency Program:	
Scientific Activities Overseas:	
Justification of budget estimates-----	4215
Obligations by country-----	4221
Program purpose and accomplishments-----	4230
Testimony concerning-----	4231
Social and Rehabilitation Activities Overseas:	
Justification of budget request-----	1049
Program purpose and accomplishments-----	1055
Projects overseas, table-----	1056
Testimony concerning-----	1169, 1180
Social Security activities overseas:	
Justification of budget request-----	1213
Program purpose and accomplishments-----	1217
Testimony concerning-----	1298
Streptococcal infections-----	3416
Stroke. (<i>See also</i> National Institute of Neurological Diseases and Stroke, <i>supra</i>)-----	3906

	Page
Training, cuts in funding :	
Aging	1169, 3196
Rehabilitation	1165
Social work	1035, 1047, 1109, 1168
Training grants, unfunded	3991
Trauma	3862
Tuberculosis. (<i>See also</i> National Heart and Lung Institute, <i>supra</i>)	3425
Unemployment, in relation to welfare payments	1090
Veneral diseases :	
Funding for control of	3142, 3163, 3322, 3426, 3546
Gonorrhea	3427
Syphilis	3428
Vitamin C	3987
Welfare :	
Costs of	1087
Emergency assistance	858
Reform legislation	1087, 1261
State estimates	1088
White House Conference on Children and Youth :	
Justification of budget estimates	1331
Program purpose and accomplishments	1340
Testimony on	1356
Work incentives :	
Justification of budget estimates	900
Program purpose and accomplishments	915
State tables and field staff	917
Testimony on	1117
Training program	909, 915
Youth Development and Delinquency Prevention	
Justification of budget request	994
Juvenile delinquency problem	999
Program purpose and accomplishments	1004
Testimony concerning	1149

DEPARTMENT OF LABOR

Budget, summary of	26-28, 65
Computer center for Department of Labor	108
Construction :	
Cabinet Committee on	109
Wages, suspension of Davis-Bacon Act	289
Construction industry, costs of	111
Construction Industry Bargaining Commission	62, 473
Consumer credit protection, budget request for	65
Consumer Price Index, revision of	95, 106
Disaster Relief Act, payments resulting from	33
Discrimination—(<i>See</i> Sex discrimination, <i>infra</i>)	
Equal Employment Opportunity in Federal Government	21
Federal Unemployment benefits and allowances :	
Justification of budget estimates	343
Summary of budget request	353, 358
Federal Workmen's Compensation Benefits	321
Garnishment—(<i>See</i> Wage garnishment, <i>infra</i> .)	
Grants to States for unemployment insurance and employment services, limitation on	366
Handicapped, President's Committee on Employment of the	519
International Labor Affairs, Bureau of :	
Justification of budget estimate	387
Special foreign currency program	401
International Labor Organization	24, 410
Job Banks	32
Job Corps :	
Budget request	198
Cost per trainee	203
Overhaul of	12, 37
Job opportunities in the business sector program	10
Jobs—(<i>See</i> Summer jobs, <i>infra</i> .)	

XVIII

	Page
Labor-management relations:	
Construction industry.....	17, 62, 112
Steel industry.....	18
Transportation industry.....	17
Labor-Management Services Administration.....	423
Labor Statistics, Bureau of:	
Justification of budget estimate.....	67
Summary of budget.....	115
Manpower Administration:	
Employees paid for.....	212
Programs explained.....	220
Salaries and expenses:	
Justification of budget.....	117
Summary of budget.....	216
Manpower training services:	
Justification of budget.....	147
Summary of budget.....	198
2% set-aside for.....	208
Neighborhood Youth Corps, restructuring of.....	11, 36
Occupational Safety and Health Act, funding of.....	19
Occupational Safety and Health Administration.....	63
Occupational Safety and Health Workplace Standards Administration.....	305
"Philadelphia Plan" and minority group labor force.....	64
Positions requested, new.....	27
President's Committee on Employment of the Handicapped—(See Handi- capped, supra.)	
Public Employee's strikes.....	475
Public information activities.....	105
Purchase survey.....	107
Secretary, Office of the.....	532
Opening statement.....	1
Sex discrimination in employment.....	22
Solicitor office of.....	481, 517
Strikes—(See Public Employee's strikes, supra.)	
Summer jobs for youth.....	34
Trade adjustment assistance program.....	219
Training, authorization under OEO act expiring.....	30
Unemployment:	
Among aerospace workers.....	15, 43
Extent and causes of.....	13, 42, 47, 115
Now transitional.....	14, 42
Service-oriented hardest hit.....	13
Skill conversions help lesson.....	44
Unemployment insurance:	
Abuse of.....	48
Extension of benefits.....	58
1970 amendments.....	16, 55
Qualifications for.....	51
Rising claims.....	16
Veterans, job placement for.....	10, 35, 63, 129, 134, 463
Wage garnishment laws.....	65, 281
Wage stabilization commission.....	62
Working force growing rapidly.....	13
Workplace standards administration.....	233, 268
Youth, summer jobs—(See Summer jobs, supra.)	

FEDERAL MEDIATION AND CONCILIATION SERVICE

Budget, justification.....	715, 743-745
Longshoremen's union.....	739
Preventive mediation.....	720, 724, 741
Program structure.....	716
Wage losses in fiscal year 1970.....	734
Workload projections.....	723, 741

XIX

NATIONAL COMMISSION ON LIBRARIES AND INFORMATION SCIENCES

	Page
Justification of budget estimates.....	1472
Testimony concerning.....	1471

NATIONAL COMMISSION ON MARIHUANA AND DRUG ABUSE

Justification of budget estimates.....	1461
New positions requested.....	1459
Testimony concerning.....	1456, 3148

NATIONAL LABOR RELATIONS BOARD

Budget, justification.....	615
Cases heard, types of.....	637
Chairman, testimony.....	642
Labor practices, unfair procedures.....	639, 657
Positions	631
Workload, increase.....	643

NATIONAL MEDIATION BOARD

Airline cases.....	665
Budget, justification.....	659
History	663
Program and performance.....	660, 663
Salaries and expenses.....	672
Testimony concerning.....	681

NATIONAL RAILROAD ADJUSTMENT BOARD

Air Line Cases.....	665
Budget, justification.....	674
History of.....	663
Program and performance.....	660
Railway Labor Act.....	681
Testimony concerning.....	681, 684
Voluntary arbitration and emergency disputes.....	668

OCCUPATIONAL SAFETY AND HEALTH REVIEW COMMISSION

Budget, justification.....	762
Duties, nature of.....	766, 771
Job safety acts.....	770
Legal assistants, use of.....	771
Testimony concerning.....	766

OFFICE OF ECONOMIC OPPORTUNITY

Authorization, lack of.....	826
Director, statement of.....	795

RAILROAD RETIREMENT BOARD

Budget, justification.....	690
Military service credits, payment for.....	693
Organizational structure.....	690
Retirement, legislation affecting.....	706
Salaries and expenses, limitation on.....	695
Testimony concerning.....	706

U.S. SOLDIERS' HOME

Admission to.....	758
Beds, domiciliary and hospital.....	757, 760
Budget, justification.....	749, 753, 759
Nonjudicial punishment, funds from.....	755
Testimony concerning.....	752

THIS BOOK DOES NOT CIRCULATE



<http://nihlibrary.nih.gov>

10 Center Drive
Bethesda, MD 20892-1150
301-496-1080

NIH LIBRARY



4 0057 3914

NIH LIBRARY



3 1496 00187 7896